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A 1960 Census Monograph

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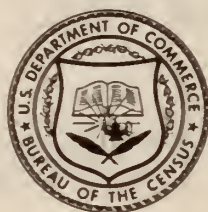
HERMAN P. MILLER

Bureau of the Census

Prepared for and in Cooperation with  
the Social Science Research Council

U.S. DEPARTMENT OF COMMERCE  
John T. Connor, Secretary  
BUREAU OF THE CENSUS  
A. Ross Eckler, Director

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for Demographic Fields

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## FOREWORD

The Decennial Census of Population is the most important single source of information about social trends in the United States. Its data on the people and families who make up the population give an insight into the major social changes occurring in our country. Data on age, sex, color, and national origin provide the essential basis for determining the changes occurring in the composition of our population. The census results make it possible to learn much about the family organization, settlement patterns, education, work relationships, income, and other important characteristics of our people. Relationships such as that of age and education to occupation and industry, or of race and education to occupation and income, tell a great deal about how our society functions. The census provides an unequalled set of statistics to meet national and local needs. The advent of electronic computers has increased the availability of census results and the exploration of interrelationships which defied analysis previously.

The regular statistical reports resulting from a decennial census can supply only a fraction of the information and insights that are available from this important source. These reports present only those results which are believed to meet the general public needs. Comprehensive analyses of the results, and comparisons with other current data and with past censuses, open the door to many illuminating findings.

It has long been recognized that the public would reap additional benefits from its investment in the censuses if some of the analyses that are readily possible could be provided along with the basic data. A series of Census monographs was issued by the Bureau of the Census after the 1920 Census results had been published. A series of Census monographs followed the 1950 Census through the cooperation of the Social Science Research Council. These monographs filled a real need and were so well received that it was felt desirable to initiate plans for a similar series following the 1960 Census.

The Council again took the lead in the formulation of these plans in 1958 when it appointed a Committee on Population Census Monographs. This Committee included:

Dudley Kirk, Population Council, Chairman  
Robert W. Burgess, Bureau of the Census  
John D. Durand, Population Branch, United Nations  
Ronald Freedman, University of Michigan  
Daniel O. Price, University of North Carolina  
John W. Riley, Jr., Equitable Life Assurance  
Society of the United States  
George J. Stolnitz, Indiana University.



Paul Webbink, of the Social Science Research Council, and Conrad Taeuber, of the Census Bureau staff, met regularly with the Committee, which reviewed proposals for Census monographs and aided in the selection of authors for specific publications.

The Council gratefully acknowledges a grant of funds from the Russell Sage Foundation for the planning and initiation of the program. The Foundation had provided similar assistance in the 1950 program.

In 1960, the Equitable Life Assurance Society of the United States, because of its concern with the expansion in knowledge of the ever-changing structure and functioning of the larger society of the United States, began a program of basic social research. As one of the first steps in this development, it has joined in encouraging and supporting a series of studies of which this monograph is a part.

The assistance from the sources named above made it possible to arrange for the time of some of the authors and to provide special tabulations and statistical and research services which were essential to the preparation of the monographs.

The program has received the active encouragement of scholars in the Federal Government and a number of universities, and we are glad to acknowledge the debt to these individuals and the institutions they represent. This co-operation was essential for the preparation of the monographs.

The monograph authors were asked to provide interpretations of census and related statistics that would illuminate major current problem areas. The authors were also asked to take a critical look at the data and to make any recommendations which in their opinion would contribute to better development and use of the data.

The views expressed in the monograph series are those of the individual authors, each of whom has been given the freedom to interpret available materials in the light of his technical knowledge and competence. These views are not necessarily those of the Bureau of the Census or the Social Science Research Council.

A. ROSS ECKLER, DIRECTOR  
BUREAU OF THE CENSUS

PENDLETON HERRING, PRESIDENT  
SOCIAL SCIENCE RESEARCH COUNCIL



## PREFACE

This study has as its focus an analysis of changes in the distribution of income in the United States based largely on information collected in the past three decennial censuses. The first two chapters present data for families and the remaining four chapters deal with persons, with primary emphasis on changes within occupational groups. The major finding of the study is that there was a reduction of inequality in the distribution of income between 1940 and 1950 but little, if any, change in this respect during the following decade. This pattern emerges not only in the overall distribution of families by income levels but also in the more detailed analyses that were made for families classified by age, sex, residence, and various other characteristics, and for men employed in 116 different occupations. The consistency of the evidence from a variety of sources strongly suggests that the observed changes in income distribution during this period reflect real changes in underlying economic relationships and are not mere statistical artifacts.

Changes in the definitions of income and occupations make it difficult to analyze trends in income distribution for occupation groups on the basis of the published census data. Those who are interested in this type of analysis will find a considerable body of new data on the subject in this monograph. Chapter IV and appendix C present information on changes in the level and distribution of wage and salary income for men in 116 different occupations in 1940, 1950, and 1960. These sections update and revise information originally published in the 1950 Census Monograph, *Income of the American People*. In addition, new information showing the wages and salaries reported in 1940, 1950, and 1960 for skilled, semiskilled, and unskilled workers in manufacturing industries, by States, has been added in chapter V and appendix D. These sections have been included not only for the light they shed on income distribution, but also in the hope that they will provide a rich new source of data for labor economists.

No Census monograph would be complete without an evaluation of the underlying data. Appendix A is intended to meet this need. In general, it shows that there was considerable improvement in the family income statistics between 1950 and 1960 and that the Census income data compare favorably with those available from other sources.

This study was originally undertaken as a joint project with the late Selma Goldsmith. Were it not for her encouragement and her willingness to be a coauthor I would never have agreed to write it. Before her untimely death in 1962 she helped prepare the outline and developed plans for several chapters.

Had she lived this undoubtedly would have been a different and far better study. Her death deprived the field of income distribution of one of its most creative, energetic, and beloved workers.

So many people have assisted in the preparation of this monograph that it is hard to know just where to begin giving thanks. Indispensable assistance was provided by five Census Bureau employees without whose help this monograph would never have been completed. Evadean Lint and Jacquin Kahn did much of the computer programming; Helen Zitter and Vivian Simmons, much of the clerical work; and Esther Goldstein typed the entire manuscript from the unreadable first drafts to the final copy. Auxiliary help was provided by Mary Henson and Arno Winard who read and checked large sections of the text. Dorothy Brady, Conrad Taeuber, and Norman Lawrence read the entire manuscript and provided many significant and useful comments. Josephine Hemphill not only read the manuscript, but capably edited it as well. Leah Anderson and Louise Douglas edited the tables and handled all copy and galley proofs through the publications process. Elma Beynon prepared the index.

The Office of Business Economics provided unpublished data which were indispensable in the evaluation of the Census income statistics. I not only thank my coworkers in this organization within the Department of Commerce for their invaluable assistance, but also absolve them of guilt in any possible misuse I have made of their statistics.

My thanks to the Census Bureau as an organization cannot be adequately expressed in words. I deem it a privilege to have worked for 20 years with men and women who are outstanding scholars, public servants, and most important of all, searchers for truth.

*Washington, D.C.*  
*March 1966*

HERMAN P. MILLER

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## CHAPTER I

# RECENT TRENDS IN FAMILY INCOME

### Introduction

Few statistics reveal as much about the operation of an economy as do those on income distribution. Although the levels of living that are possible in any society are prescribed by the size of the national product, a given output can be distributed in many different ways. It can provide palaces for live kings and pyramids for dead ones, but hovels and hunger for the mass of mankind; or it can be widely distributed and provide reasonably uniform levels of living for all.

In view of the complex questions that income statistics are used to answer, it would be surprising indeed if the data were easy to collect or to interpret. The difficulties of measurement and interpretation are attested to by Simon Kuznets, who, after plowing this field for a lifetime, has called measures of income distribution “. . . preliminary informed guesses . . .”<sup>1</sup> and by Dorothy S. Brady, who has referred to income statistics in general as “. . . deficient in both quantity and quality.”<sup>2</sup>

These judgments, however, can be made about all statistics. The more one knows about a set of numbers the less likely he is to be entirely satisfied with them. Numbers at best provide a very thorny path to the truth. Thus, the income statistician may find himself in a position not too different from that of Stephen Crane’s “Wayfarer.”

The wayfarer,  
Perceiving the pathway to truth,  
Was struck with astonishment.  
It was thickly grown with weeds.  
“Ha,” he said,  
“I see that no one has passed here  
In a long time.”  
Later he saw that each weed  
Was a singular knife.  
“Well,” he mumbled at last,  
“Doubtless there are other roads.”

As the story unfolds, the numerous and serious shortcomings of income statistics will be discussed in some detail. It would be a mistake, however, to dwell on the limitations of the data, for although there are still many unanswered questions, much more is now known about income distribution than ever before. The primary purpose of this monograph is to summarize and synthesize the

information. It has been collected from many sources, but principally from the results of the past three decennial censuses, the annual surveys conducted by the Bureau of the Census since 1945, and data published by the Office of Business Economics of the Department of Commerce. The available data permit us to answer questions that would have been regarded as impossible to answer only a generation ago. We can now quantify with some degree of certainty the annual changes in the distribution of income among families (using several different definitions of income and the family), changes in the composition of lower and upper income groups, and the amount and direction of income changes among occupations and industries. We can also shed light on a host of other important economic questions.

To begin with, we might examine the widely held opinion that incomes in the United States are gradually becoming more evenly distributed. This view is held by prominent economists and is shared by influential writers and editors. Arthur F. Burns stated in 1951 that the “. . . transformation in the distribution of our national income . . . may already be counted as one of the great social revolutions of history.”<sup>3</sup> Paul Samuelson remarked in 1961 that there are studies which suggest that “. . . the American income pyramid is becoming less unequal.”<sup>4</sup> Several major stories on this subject have appeared in *The New York Times*, and the editors of *Fortune* announced in 1953 that “Though not a head has been raised aloft on a pikestaff, nor a railway station seized, the U.S. has been for some time now in a revolution.”<sup>5</sup>

What are the facts about trends in the inequality of income distribution in the United States? Few would question that real incomes have risen for most of the population; or that even those who have been left behind enjoy a far higher level of living than most people in other parts of the world. Despite the generally high levels of living, we remain concerned about income shares.

Has there been any narrowing of this gap between the rich and the poor? If we stick to the figures, the answers are clear, unambiguous, and contrary to widely held beliefs. The statistics show no appreciable change in income shares for nearly 20 years. The heart of the story is told in table I-1, which was obtained by ranking families and unrelated individuals from lowest to highest according to income and cumulating the amount of income each received. The table shows the percent (or share) of the total income paid out each year that went to each fifth of the families and individuals, and to the top 5 percent. The share received by the top 5 percent is large because their incomes were so much larger than those of others. In 1962, families and individuals in the top 5 percent on the average received \$17,200 or more, whereas those in the lowest 20 percent made \$2,900 or less (about \$55 a week).

During the depression of the thirties there was a distinct drop in the share of the income received by the upper income groups. In 1929, the last year of the prosperous twenties, the top 5 percent received 30 percent of the income. Their share, which dropped regularly during the depression, amounted to about one-fourth of the income at the time we entered World War II. The decline



Table I-1.—PERCENT DISTRIBUTION OF FAMILIES AND UNRELATED INDIVIDUALS, BY FAMILY PERSONAL INCOME RECEIVED BY EACH FIFTH AND BY THE TOP 5 PERCENT, FOR SELECTED YEARS, 1929 TO 1962

Income rank	1962	1961	1960	1944	1941	1935-36	1929
FAMILIES AND UNRELATED INDIVIDUALS							
Total.....	100	100	100	100	100	100	100
Lowest fifth.....	5	5	5	5	4	4	} 13
Second fifth.....	11	11	11	11	10	9	
Middle fifth.....	16	16	16	16	15	14	
Fourth fifth.....	23	23	23	22	22	21	
Highest fifth.....	46	46	45	46	49	52	54
Top 5 percent.....	20	20	20	21	24	27	30
FAMILIES							
Total.....	100	100	100	100	100	100	(NA)
Lowest fifth.....	6	6	6	6	5	4	(NA)
Second fifth.....	12	12	12	12	10	9	(NA)
Middle fifth.....	17	17	17	16	16	14	(NA)
Fourth fifth.....	23	22	22	22	22	21	(NA)
Highest fifth.....	43	43	43	44	48	52	(NA)
Top 5 percent.....	18	18	18	20	24	27	(NA)

NA Not available.

Source: Data for families and individuals from U.S. Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1957*, p. 166, and *Survey of Current Business*, April 1964, p. 8. Data for families for 1960-62 computed from *Survey of Current Business*, April 1964, p. 6; and for 1935-36, 1941, and 1944 from Selma F. Goldsmith, *et al.*, "Size Distribution of Income Since the Mid-Thirties," *Review of Economics and Statistics*, February 1954, p. 9.

continued during the war years and in 1944 their share dropped to 21 percent. Since that time there has been no significant change in the percent of income received by the top 5 percent, and a similar trend applies to the top 20 percent.

At the bottom of the income scale, the data show that in 1935-1936 the lowest 20 percent of the families and individuals received only 4 percent of the income, and that in 1944 their share rose to 5 percent, where it has remained ever since. The stability of the shares received by each of the other quintiles is equally striking.

These figures hardly support the view held by many Americans that incomes in our society are becoming more evenly distributed. The changes that took place—ending about a quarter of a century ago—involved in large measure a redistribution of income among families in the top and middle brackets. Although the share received by the lowest income groups increased slightly during the war, since then it has not changed.<sup>6</sup>

Problems of interpretation

The stability of income shares shown in table I-1 does not necessarily imply a stability of economic welfare; it is conceivable that a proportional increase in everybody's real income means more to the poor than to the rich. How can we compare the utility of a loaf of bread to the man who is starving, with the utility of another Cadillac to the man who already has three? Exact comparisons cannot be made; yet many people believe that satisfying the most urgent and

basic needs of the poor implies some leveling up in the comforts of life, even though income shares have remained constant.

To cite further and similar examples, it is likely that the extension of government services which provide better housing, more adequate medical care, and improved educational facilities has been of more benefit to low-income families than to those with higher incomes. And the increase in paid vacations has surely brought a more equal distribution of leisure time—a good that is almost as precious as money. Furthermore, improved working conditions, including air conditioning, better lighting, mechanization of routine work, and the like, have undoubtedly benefited more manual workers than those in higher paid and more responsible positions.

When allowance is made for these and other factors, it may well be that some progress has been made during recent years in diminishing the inequality of levels of living. But we do not know how much allowance to make, and our judgments could be wrong. Moreover, most opinions regarding changes in inequality, including those held by professional economists, are based on statistical measures of income rather than on philosophic concepts. With all their limitations, the income figures may well serve as a first approximation of changes in welfare.

The picture presented in table I-1 is further complicated by taxes. The figures shown are for income before taxes. Since families in the higher income groups pay a large share of the taxes, their share would be smaller on an after-tax basis. It is smaller, but not by as much as one might suppose. In recent years the top 5 percent received 20 percent of the income before taxes, and about 18 percent of the income after Federal individual income tax payments were deducted.<sup>7</sup> Since the graduated income tax falls more heavily on the upper income groups than do most other major tax measures, it is not surprising that their share of the income is decreased when individual income tax payments are deducted. This tax, however, accounts for only 37 percent of the \$124 billion collected in 1962 by Federal, State, and local governments from all sources.<sup>8</sup> Many of the other taxes—the sales tax, for example—are paid disproportionately by the lower income groups. Taking into account all tax payments, the equalization of income as a result of taxation would be less than that shown for the Federal individual income tax alone.<sup>9</sup>

Still restricting our attention to the interpretation of results shown in table I-1, numerous other problems come to mind—problems centering largely on the definition of the income-receiving unit, on the accounting period over which income is cumulated, on concepts of income, and on the accuracy of the underlying data.<sup>10</sup>

To begin with definitions, the income-receiving unit shown in table I-1 is the family or the unrelated individual. The family is defined as a group of two or more persons related by blood, marriage, or adoption, and living together. The income of the family is the combined total received by all family members



during the calendar year. An unrelated individual is defined as a person (other than an inmate of an institution) who is not living with relatives. These persons are called unattached individuals in statistics compiled by the OBE. For all practical purposes the terms are interchangeable.

When these definitions are examined critically a host of problems emerge. Since the end of World War II, a very sharp increase has taken place in the number of older people who maintain their own households rather than share living quarters with children or other relatives. This type of living arrangement has been made possible, for the most part, by the small measure of financial independence provided by the Social Security System, and by the prosperous conditions of the postwar years.

For the income statistician, the increasing tendency for older people to continue to maintain their own households creates serious problems. Today there are proportionately far more unrelated individuals than there were in the forties. These groups typically have very low incomes; thus their inclusion in the distribution tends to increase its inequality, since it creates relatively large numbers of units with little or no income at the bottom of the distribution. Therefore, even though the definition of the income-receiving unit has remained constant over time, changes in living arrangements of the population may have produced variations in the statistics. The impact of this change is minimized considerably by showing figures for families alone rather than for families and individuals combined. Table I-1 shows that trends in income distribution for families alone are almost identical with those for families and individuals combined. Other methods of reducing the impact of changes in living arrangements on the measure of income concentration are described near the end of this chapter.

Closely related to the definition of the income-receiving unit is the accounting period covered by the figures. Simon Kuznets has referred to the classification of families by their income in a single year as the major limitation of income statistics for purposes of measuring income inequality.<sup>11</sup>

Family income is defined as the combined receipts of all members of a family during a calendar year. Since the family includes only those persons living together at the time of the survey, some obvious distortions may arise. For example, a widow who had been supported by her husband during the year preceding the survey would be tabulated as an unrelated individual without income if she happened to be living alone at the time of the survey. Newly married couples who had been living with and supported by their parents during the preceding year would also appear at the bottom of the distribution. Here, of course, there is a dual problem—a change in family status, plus the fact that income is counted for only a single year. For a young family, low income has a significance entirely different from that for a middle-aged family.

Turning now to the income concept itself, we find that it presents several important limitations that complicate interpretation. The figures in table I-1 represent money and nonmoney income; in this respect they are much more

complete than the census figures, which relate only to cash receipts. Since it is not feasible in a census to try to collect information on imputed income, the data necessary for adjustment were not available. However, much of what is counted as nonmoney income in table I-1 is included, not because it provides a more realistic portrayal of the funds available for consumption or saving by the average family, but for the sake of consistency with the national income accounts.<sup>12</sup>

Few would argue about adding the value of nonmoney food or housing received by farmers or farm laborers. These items, however, accounted for only a little more than \$3 billion of a total of about \$25 billion of nonmoney income included in the aggregate that underlies the distribution for 1960 shown in table I-1. About \$11 billion of the total represents imputed interest (largely the value of free banking services received by the owners of checking accounts, and the estimated amount that policy holders would receive if insurance companies distributed their property income), and about \$6 billion is imputed rental income assumed to have been received by nonfarm homeowners who served as their own landlords.<sup>13</sup>

Money income includes the items usually thought of as income: cash wages and salaries; net income (after expenses) from self-employment; and cash income from other sources such as interest, dividends, net rental income, Social Security and unemployment benefits, private pensions, public assistance, and regular contributions for support from persons not living in the household.

Both the family personal income concept (used in table I-1) and the money income concept exclude imputed income from paid vacations, fringe benefits, and from many other receipts not normally counted as income. These concepts also exclude capital gains and losses, which have become more important during recent years for the upper income groups. While income from this source is of prime importance in many individual cases, it does not have a major impact on the overall income curve because it represents only about 2.5 percent of total family personal income. An attempt made in 1958 to adjust the distribution of family personal income to include capital gains and losses showed that there was little if any change in the share of the aggregate received by each of the four lowest quintiles, and that the share received by the top 5 percent increased only slightly—from 19.9 percent to 20.3 percent.<sup>14</sup>

A variety of problems comes to the fore when the accuracy of the income statistics is considered. This subject is treated in detail in appendix A.

### **Average income per family, 1929 to 1962**

*Growth measured in current dollars.* Although this study deals primarily with income distribution, it starts with a look at national trends during recent years in aggregate income, family formation, and average income per family. Since these measures define the levels of living that are possible at a given time, they are in some respects even more important than the distribution by income classes.



Detailed analyses of trends in aggregate and average income have been made in numerous other studies.<sup>15</sup> The subject is touched on here, rather briefly, to provide a background for the income distribution data that follow. The figures in table I-2, prepared by the Office of Business Economics, are statistically and conceptually consistent with the national income accounts. They are end-of-year estimates of the numbers of families and unrelated individuals as defined by the Bureau of the Census. Family personal income includes money income as previously defined (see p. 5), as well as nonmoney income. The nonmoney items included are wages in kind, food and fuels produced and consumed on farms, net imputed rental value of owner-occupied homes, and imputed interest.<sup>16</sup>

Table I-2.—FAMILIES AND UNRELATED INDIVIDUALS AND THEIR AGGREGATE AND AVERAGE FAMILY PERSONAL INCOME, FOR SELECTED YEARS, 1929 TO 1962

Year	Families and unrelated individuals (millions)	Aggregate family personal income (billions of current dollars)	Average (mean) family personal income
1962.....	57.9	\$420.4	\$7,260
1961.....	57.3	397.0	6,930
1960.....	56.1	382.3	6,820
1959.....	55.3	365.8	6,620
1958.....	54.6	343.3	6,280
1957.....	53.7	334.6	6,240
1956.....	52.9	317.4	6,010
1955.....	52.2	294.2	5,640
1954.....	51.2	274.0	5,360
1953.....	50.5	272.2	5,390
1952.....	50.2	257.2	5,120
1951.....	49.5	242.7	4,900
1950.....	48.9	217.3	4,440
1949.....	47.8	199.3	4,170
1948.....	46.3	201.4	4,350
1947.....	44.7	184.6	4,130
1946.....	43.3	170.7	3,940
1944.....	40.9	147.7	3,610
1941.....	41.4	91.4	2,210
1935-36.....	38.4	62.7	1,630
1929.....	36.1	84.3	2,340

Source: Data for 1929 and 1947-62 from Jeannette M. Fitzwilliams, "Size Distribution of Income in 1963," *Survey of Current Business*, April 1964, p. 5; and for 1935-36 from U.S. Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1957*, pp. 163 and 166.

Since 1929, the number of families and unrelated individuals increased by about 22 million, or about 60 percent. Expressed as an annual average for the entire period, this increase amounted to almost 700,000, or 1.4 percent, per year. Household formation during this period took place at a considerably faster rate. Between 1929 and 1962, the number of households increased from 29.6 million to 54.7 million, representing a gain of about 85 percent, or an average growth rate of about 2.6 percent per year.<sup>17</sup> The main reason for the more rapid rate of household formation is the increased tendency, particularly among unrelated individuals, to maintain their own homes or apartments rather than live with relatives or move into existing households as roomers, lodgers, and so forth. In 1940, for example, 3 million out of about 9 million unrelated individuals maintained their own residences; the others lived in other people's

homes, generally as roomers or boarders. In 1962, the number of unrelated individuals rose to 11.5 million, but nearly three-fourths maintained their own homes.<sup>18</sup> As previously noted, one important reason for this change in living arrangements is the increase in Social Security payments which has made it economically feasible for many people to retain their homes or apartments in old age.

Before the Social Security System was established, and during the early stages of that System, when payments were quite low, many persons were forced to give up their homes when they were too old or too ill to obtain employment, or when their spouses died. For example, many widows who could not afford to pay rent, utilities, and other household expenses after their husbands died, usually found that their only recourse was to move in with their children, or to obtain lodging which, although much cheaper than they were used to, provided a far lower level of living.

The housing problem has been considerably alleviated by the Social Security System's guaranteed income in old age, which makes it possible for many older people to keep their own homes or apartments. Furthermore, the generally full employment conditions that prevailed during most of the postwar period furnished job opportunities for young and old. These prosperous years provided not only the current income required to maintain a home, but also a backlog of savings which in many cases permitted mortgages to be paid off, thereby reducing current living costs appreciably.

Aggregate family personal income rose at a much more rapid rate than the number of families and individuals during the postwar years, although, as will be shown, much of this rise simply represented an inflation of dollar values. In dollar terms, however, aggregate income, unadjusted for price changes, rose from \$84 billion in 1929 to \$420 billion in 1962, or at a rate of about 10 percent per year. As a result of the sharp increase in the aggregate during this period, average family personal income tripled, rising from \$2,300 in 1929 to \$7,300 in 1962.

Despite a general increase in the number of families and individuals and in aggregate income throughout the period, there were marked variations for different years. Most of the years between 1929 and 1941 were characterized by economic depression. It is not surprising that during this time there was little growth; indeed, the average annual rate of increase in the number of families and individuals exceeded the increase in aggregate income, so that average family income dropped slightly—from \$2,300 in 1929 to \$2,200 in 1941.

The normal rate of family formation was interrupted during the war years when millions of young men were inducted into the Armed Forces. Between 1941 and 1944, the number of families and individuals dropped slightly, but aggregate income—because of full employment engendered by wartime demand—showed a marked increase. During these years aggregate and average family income rose at an annual rate of about 20 percent; this was by far the highest recorded during the 33-year period (1929 to 1962) under consideration.



With the cessation of hostilities in 1945, millions of men returned home and family formation took place at an accelerated rate. Between 1946 and 1950, the number of families and individuals increased at the rate of about 1.4 million, or 3 percent per year. The prosperous conditions throughout this period also produced substantial annual increases in income, with the result that average family income rose at the rate of about 3 percent per year. This was also, of course, a period of rapid inflation; as will be shown later, much of the increase in dollars received did not produce an increase in purchasing power.

Since 1950, the number of families and individuals has grown at a much slower rate—about 750,000, or 1.4 percent, per year—about half the rate that prevailed just after World War II. Aggregate income, on the other hand, has continued to grow at the rate of about 8 percent per year, and average family income has grown at an annual rate of about 5 percent.

The impact of the recessions of 1953–1954 and 1957–1958 is clearly reflected in table I-2. During 1953–1954, average family income dropped slightly; in 1957–1958 the average rose by less than 1 percent. The annual increase in income in every other year during the postwar period far exceeded these relatively small changes.

*Growth in average real income.* The income averages presented above were in current dollars. Such comparisons do not reflect changes in purchasing power because the general level of prices rose substantially, particularly during the postwar period. In order to eliminate the effect of the rise in prices insofar as the available data permit, the averages are presented in table I-3 in terms of constant (1962) dollars.

Table I-3.—AVERAGE FAMILY PERSONAL INCOME BEFORE AND AFTER FEDERAL INDIVIDUAL INCOME TAX LIABILITY, FOR SELECTED YEARS, 1929 TO 1962  
[Includes income of unrelated individuals]

Year	Before tax		After tax	
	Current dollars	1962 dollars	Current dollars	1962 dollars
1962.....	\$7,140	\$7,140	\$6,400	\$6,400
1961.....	6,920	6,980	6,210	6,270
1960.....	6,810	6,930	6,130	6,230
1959.....	6,620	6,810	5,940	6,120
1958.....	6,280	6,560	5,670	5,920
1957.....	6,240	6,640	5,610	5,970
1956.....	6,010	6,580	5,400	5,920
1955.....	5,640	6,280	5,090	5,670
1954.....	5,360	5,990	4,840	5,420
1953.....	5,390	6,090	4,810	5,430
1952.....	5,120	5,850	4,570	5,220
1951.....	4,900	5,720	4,420	5,150
1950.....	4,440	5,520	4,070	5,060
1949.....	4,170	5,250	3,860	4,870
1948.....	4,350	5,430	4,010	5,010
1947.....	4,130	5,450	3,720	4,910
1946.....	3,940	5,760	3,580	5,230
1944.....	3,610	5,910	3,210	5,260
1941.....	2,210	4,650	2,110	4,440
1935-36.....	1,630	3,740	1,610	3,690
1929.....	2,340	4,250	2,320	4,220

Source: Jeannette M. Fitzwilliams, "Size Distribution of Income in 1962," *Survey of Current Business*, April 1963. Figures for 1935-36, 1941, 1944, and 1946 based on unpublished data.

The adjustment for price change was made by dividing the aggregate income for each year by a price index for that year, using the implicit price deflator for personal consumption expenditures in the national income accounts (1962=100). This adjustment assumes that the same index can be used for families at all income levels; and that price changes for personal consumption are the same as those for total income, which includes family savings and income tax payments in addition to personal consumption expenditures.

Besides the adjustment for price changes, table I-3 shows average family income excluding Federal individual income tax liability. This adjustment provides a measure of purchasing power in 1962 dollars, showing what might loosely be regarded as real disposable income available per family. This estimate actually represents more than disposable income, since only Federal individual income taxes—not total tax payments—are deducted. Although a strong case can be made for the deduction of taxes to obtain a measure of discretionary purchasing power, it can also be argued that tax payments simply represent one form of expenditure for which goods and services are received, and as such should not be singled out for adjustment. In the first place, the consumer is faced with other obligatory payments, such as those made to retirement funds, which reduce his current purchasing power.

A more important consideration is the fact that a large part of the tax dollar is used for public health activities, highway construction, and to provide other goods and services that are needed because of the concentration of the population in large cities. Defense expenditures, for example, which consume the largest share of the tax dollar, are a form of protective service purchased by individuals collectively. The fact that we need more of this service now than we needed 25 years ago is ignored when tax payments are deducted from income—presumably to place different periods of time on a comparable base with respect to purchasing power.

Table I-3 shows that before World War II real income and current income tended to move in the same direction, although the amplitude of the movement was much smaller for real income. Both series fell between 1929 and 1936; however, the drop in current dollars was 30 percent compared with only 12 percent in real income. Similarly, both series rose between the depth of the depression and the outbreak of war in Europe, but average income in current dollars rose somewhat more rapidly. Since the immediate postwar period witnessed rather serious inflation in the United States, it is not surprising to see a marked divergence between the two series. Between 1946 and 1951, current income rose by about one-fourth, whereas there was little change in real income. Since 1951 there has been a general rise in both series with no marked divergences.

Before World War II, the differences in average income before and after Federal income tax liability were quite small, amounting in most years to less than \$100 per consumer unit. During the war, the Federal income tax rose on the average to about \$400 per consumer unit, and from 1947 to 1956 it



averaged about \$500. Since then it has risen to about \$700 per consumer unit. The real "purchasing power" of consumer units rose by about \$1,400 between 1946 and 1962, or about \$90 per year. The current dollar values were roughly twice that amount.

*Comparison of Census and Office of Business Economics (OBE) data.* Trends in aggregate and average income for the postwar period can be obtained from the annual income surveys conducted by the Bureau of the Census as well as from the Office of Business Economics estimates cited above. Similar data are also available from the 1950 and 1960 Censuses. Since this study uses both annual and decennial census data, it is of interest to compare the figures with each other, and to compare both sets of data with the OBE estimates prepared on an entirely independent basis. These comparisons are shown in table I-4.<sup>19</sup>

Table I-4.—BUREAU OF THE CENSUS AND OFFICE OF BUSINESS ECONOMICS ESTIMATES OF TOTAL MONEY INCOME AND AVERAGE MONEY INCOME, FOR FAMILIES AND UNRELATED INDIVIDUALS: 1944 TO 1962

Year	Families and unrelated individuals (millions)	Census		OBE		Ratio of Census to OBE (Col. 2) (Col. 4)
		Total money income (billions)	Average (mean) money income	Total money income (billions)	Average (mean) money income	
	(1)	(2)	(3)	(4)	(5)	(6)
1962.....	58.0	\$354	\$6,106	\$405	\$6,966	.87
1961.....	57.5	339	5,896	381	6,626	.89
1960.....	56.3	320	5,684	368	6,536	.87
1959: Census <sup>1</sup> .....	58.3	332	5,696	352	6,308	.94
CPS.....	55.8	303	5,430			.86
1958.....	55.0	280	5,091	328	5,964	.85
1957.....	54.0	265	4,907	321	5,944	.83
1956.....	53.1	257	4,840	305	5,744	.84
1955.....	52.6	235	4,468	284	5,399	.83
1954.....	51.6	218	4,225	263	5,097	.83
1953.....	50.7	216	4,260	263	5,187	.82
1952.....	50.5	203	4,020	245	4,851	.83
1951.....	49.7	189	3,803	231	4,648	.82
1950.....	49.3	171	3,469	208	4,219	.82
1949: Census <sup>1</sup> .....	49.4	157	3,178	190	3,934	.83
CPS.....	48.3	156	3,230			.82
1948.....	47.0	157	3,340	191	4,064	.82
1947.....	45.4	148	3,260	180	3,965	.82
1946.....	(NA)	130	(NA)	166	(NA)	.78
1945.....	40.1	114	2,843	154	3,766	.74
1944.....	40.8	111	2,721	140	3,431	.79

NA Not available.

<sup>1</sup> Based on decennial census; other census figures in this table are based on the Current Population Surveys. All census aggregates shown here were computed from distributions for families and unrelated individuals. In all cases except the 1950 Census data there is close agreement between the aggregates computed in this way and those based on distributions for persons 14 years old and over. The 1950 Census aggregates based on distributions for persons were 91 percent of the comparable OBE total in contrast to the 83 percent shown here. The difference is due to methods used to collect and process income statistics in the 1950 Census. See appendix A for a more complete discussion of this point.

Source: Data for 1953-60 from unpublished data of the Bureau of the Census and Office of Business Economics; and for 1944-52 from Selma F. Goldsmith, "The Relation of Census Income Distribution Statistics to Other Income Data," *Studies in Income and Wealth*, Vol. 23, Princeton University Press, 1958, p. 71.

The most significant finding in table I-4 is that despite marked differences in level between the Census and OBE series, there is a striking similarity in trend. In every year for which comparisons can be made, annual changes in average



income in both series have been in the same direction. Moreover, the magnitudes as well as the direction of change have been quite similar. The greatest difference in trend occurred between 1944 and 1945, when the OBE average rose by about \$300, or 10 percent, whereas the Census Bureau survey average rose by only about \$100, or 4 percent. The survey estimates for these years may have been erratic because of unsettled wartime conditions, and also because the technique of collecting income information in household surveys was still in its infancy. Since 1947, both series have had essentially the same year-to-year movements. Differences of \$100 or more occurred in only two of the postwar years; in most periods the annual changes in income level were insignificant when measured in either absolute or relative terms.<sup>20</sup>

### Distribution by income levels, 1929 to 1962

Since the depression of the thirties the increase in the aggregate and average family income has been widespread throughout the population, resulting in a general movement of families up the income scale. There have, of course, been many exceptions. The aged, uneducated, and unskilled have not moved ahead as fast as the others; but even for these groups the sharp edge of poverty has been blunted.<sup>21</sup>

The more typical picture, especially during the postwar years, has been one of gradually rising family incomes due not only to the full-time employment of chief breadwinners, but also to the rising tendency for families to send secondary workers into the labor market. These factors, combined with the increasing productivity of American industry, have caused a persistent drop in the number and proportion of families at the lower income levels, and a corresponding increase in the middle and upper levels. Although part of the rise is due to an inflation of dollar values, even after adjustments are made for price changes, there has been a very marked increase in real family income.

The extent of the increase can be seen most dramatically in a single statistic. In 1929, at the height of the prosperous twenties, 31 percent of the families and individuals had incomes under \$2,000. Using the same dollar standard, adjusted for price changes, we find that 32 years later only 12 percent of the families and individuals had incomes this low. This decrease clearly means that there has been a very sharp drop in the proportion of persons living at near-subsistence levels, and that for millions of people *absolute* want has been eliminated.

Numerous studies have been made of trends in the overall distribution of families by income levels, and the factors associated with these trends are reasonably well known. The main reason for summarizing the data here is to provide a background for the more detailed analysis that will follow. Moreover, the summary data permit a comparison of figures from two of the major sources of information on the subject—the Census and OBE estimates. Tables I-5 and I-6 show the OBE data in current and constant dollars, respectively. Table I-7 shows corresponding, although not exactly comparable, estimates based on Census data.



# RECENT TRENDS IN FAMILY INCOME

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Table I-5.—FAMILIES AND UNRELATED INDIVIDUALS, BY FAMILY PERSONAL INCOME LEVEL, FOR SELECTED YEARS, 1935 TO 1962

Family personal income level	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1947	1946	1944	1941	1935-36
<b>Families and unrelated individuals:</b>																		
Number.....millions..	57.9	57.3	56.1	55.3	54.6	53.7	52.9	52.2	51.2	50.5	50.2	49.5	48.9	44.7	43.3	40.9	41.4	38.4
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$2,000.....	12.0	12.9	13.1	13.6	14.1	14.2	14.6	15.8	17.5	16.9	17.8	18.7	23.2	24.9	26.4	30.5	58.9	77.7
\$2,000 to \$3,999.....	18.3	19.4	19.8	20.7	22.2	22.1	23.1	25.4	27.0	26.6	28.2	31.0	34.2	38.2	40.1	40.3	32.1	17.5
\$4,000 to \$5,999.....	20.4	21.3	21.7	22.3	23.9	24.3	25.8	26.1	25.7	26.3	27.3	26.4	24.0	20.6	19.5	17.3	6.8	3.3
\$6,000 to \$7,499.....	14.1	14.1	14.1	14.0	12.6	12.6	11.6	10.0	9.2	9.4	8.2	6.8	5.6	4.8	4.0	3.4	0.9	0.6
\$7,500 to \$9,999.....	15.7	14.7	14.5	14.0	12.6	12.6	11.6	10.0	9.2	9.4	8.2	6.8	5.6	4.8	4.0	3.4	0.9	0.6
\$10,000 to \$14,999.....	12.3	11.1	10.6	9.6	8.5	8.0	7.2	5.9	5.2	5.1	4.1	3.8	3.1	2.7	2.5	1.7	1.3	0.9
\$15,000 and over.....	7.2	6.5	6.2	5.7	4.8	4.7	4.1	3.5	3.1	3.0	2.8	2.6	2.0	1.8	1.6	1.3	1.3	0.9
Average (mean) income.....	\$7,262	\$6,930	\$6,819	\$6,615	\$6,284	\$6,238	\$6,007	\$5,640	\$5,356	\$5,389	\$5,122	\$4,904	\$4,444	\$4,126	\$3,940	\$3,614	\$2,209	\$1,631
<b>Aggregate income.....billions..</b>																		
Under \$2,000.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
\$2,000 to \$3,999.....	1.8	2.1	2.1	2.3	2.5	2.6	2.7	3.2	3.9	3.7	4.0	4.4	6.1	7.2	8.0	10.0	27.9	45.4
\$4,000 to \$5,999.....	7.7	8.5	8.9	9.5	10.8	10.8	11.8	13.9	15.4	15.0	16.8	19.2	23.1	27.8	30.4	33.2	40.1	28.7
\$6,000 to \$7,499.....	14.1	15.3	15.9	16.9	18.9	19.2	21.3	23.0	23.8	24.2	26.2	26.4	26.3	24.0	23.8	23.0	15.5	10.3
\$7,500 to \$9,999.....	13.0	13.6	13.9	14.4	14.8	15.1	15.2	15.8	15.3	15.6	15.1	14.7	11.8	11.3	9.9	10.1	3.5	3.2
\$10,000 to \$14,999.....	18.6	18.2	18.3	18.1	17.2	17.4	16.5	15.1	14.7	14.9	13.5	11.8	10.8	10.0	8.7	8.0	3.5	3.2
\$15,000 and over.....	20.2	19.2	18.6	17.3	16.3	15.5	14.4	12.5	11.6	11.6	9.4	9.3	8.4	7.7	7.5	5.7	13.0	12.4
Average (mean) income.....	\$24.6	\$23.1	\$22.3	\$21.5	\$19.5	\$19.4	\$18.1	\$16.5	\$15.3	\$15.0	\$15.0	\$14.2	\$13.5	\$12.0	\$11.7	\$10.0	\$13.0	\$12.4
<b>Families:</b>																		
Number.....millions..	46.9	46.2	45.4	44.8	44.1	43.7	43.4	42.7	41.8	41.1	40.8	40.4	39.8	37.0	35.9	33.3	32.9	30.4
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$2,000.....	6.9	7.5	7.4	7.8	8.0	8.2	8.4	9.3	10.7	9.9	10.7	11.3	15.6	17.3	18.5	22.0	53.2	74.1
\$2,000 to \$3,999.....	14.4	15.6	16.0	16.9	18.7	18.6	19.9	22.6	24.7	24.1	26.2	29.8	34.1	39.5	42.2	43.4	36.2	20.3
\$4,000 to \$5,999.....	20.6	21.8	22.6	23.6	25.7	26.3	28.5	29.3	29.1	29.8	31.3	30.3	27.9	23.9	22.7	20.3	8.0	3.8
\$6,000 to \$7,499.....	16.0	16.2	16.3	16.5	16.4	16.6	16.0	15.7	14.6	15.1	13.8	12.8	9.4	8.3	6.9	6.6	1.1	0.7
\$7,500 to \$9,999.....	18.6	17.5	17.4	16.7	15.1	15.1	13.7	11.9	11.1	11.3	9.8	8.2	6.8	5.8	4.8	4.1	1.1	0.7
\$10,000 to \$14,999.....	14.8	13.5	12.8	11.6	10.3	9.7	8.6	7.0	6.3	6.3	4.9	4.6	3.8	3.2	2.9	2.1	1.5	1.1
\$15,000 and over.....	8.7	7.9	7.5	6.9	5.8	5.5	4.9	4.2	3.5	3.5	3.3	3.0	2.4	2.0	2.0	1.5	1.5	1.1
Average (mean) income.....	\$8,151	\$7,797	\$7,667	\$7,435	\$7,065	\$6,992	\$6,706	\$6,303	\$5,994	\$6,041	\$5,737	\$5,477	\$4,969	\$4,574	\$4,369	\$4,027	\$2,437	\$1,784
<b>Aggregate income.....billions..</b>																		
Under \$2,000.....	382.2	360.1	347.8	332.9	311.7	305.3	290.7	268.9	250.3	248.4	233.9	221.4	197.7	169.3	156.7	134.1	80.2	\$54.3
\$2,000 to \$3,999.....	1.0	1.2	1.2	1.3	1.4	1.5	1.6	1.8	2.3	2.1	2.4	2.7	4.1	5.0	5.6	7.0	24.2	41.5
\$4,000 to \$5,999.....	5.4	6.2	6.5	7.1	8.3	8.3	9.3	11.3	12.7	12.4	14.2	16.9	21.0	26.2	29.3	32.4	41.4	30.5
\$6,000 to \$7,499.....	12.7	14.1	14.8	15.9	18.2	18.8	21.0	23.1	24.2	24.5	27.0	27.3	27.5	25.2	25.0	24.4	16.7	10.9
\$7,500 to \$9,999.....	13.2	14.0	14.3	14.9	15.5	15.8	16.0	16.7	16.3	16.7	16.1	15.6	12.5	12.0	10.5	10.9	3.8	3.4
\$10,000 to \$14,999.....	19.7	19.3	19.4	19.3	18.4	18.5	17.6	16.1	15.7	16.0	14.4	12.5	11.5	10.7	9.3	8.6	3.8	3.4
\$15,000 and over.....	21.7	20.6	20.0	18.5	17.5	16.6	15.4	13.5	12.5	12.4	10.1	10.0	9.0	8.3	8.0	6.2	13.9	13.7
Average (mean) income.....	\$26.3	\$24.6	\$23.8	\$23.0	\$20.7	\$20.5	\$19.1	\$17.5	\$16.3	\$15.9	\$15.8	\$15.0	\$14.4	\$12.6	\$12.3	\$10.5	\$13.9	\$13.7

Source: Family data for 1955-62 from Jeannette M. Fitzwilliams, "Size Distribution of Income in 1963," *Survey of Current Business*, April 1964, p. 6; and for 1935-36, 1941, 1944, 1946, 1947, and 1950-54 from U.S. Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1957*, p. 164.

One dramatic change shown by these figures is a precipitous drop in the proportion of families and individuals with incomes under \$40 a week (less than \$2,000 a year). During the depression of the 1930's about 3 out of every 4 families and individuals received incomes less than this; by 1941, the proportion had dropped to 3 out of 5, and by 1950, to 1 out of 4. In 1962 only 1 of each 8 were receiving incomes this low.

Another view of this same change may be had in terms of share of all incomes received by families and individuals with incomes below \$2,000 per year. During the thirties, this group received nearly half of all incomes, and its share fell to about 1 in 4 by the start of World War II, and to about 1 in 50 in 1962.

It is true that the change in the value of the dollar during the last 30 years makes it hard to extricate the real change from the apparent change, but the figures suggest strongly, as does other information to be dealt with later, that there has been an impressive decline in the proportion of families and individuals at the lowest income levels.

During the same period, equally impressive changes were taking place at the other end of the income scale among the top income groups. During the thirties, and even as recently as 1941, only 1 percent of the families in these groups had incomes over \$10,000. By 1950, the proportion had increased fivefold, and in 1962, nearly one-fifth of the families and individuals were in this income class. In terms of aggregate income, this top class received only one-eighth of the total in the prewar period, compared with 45 percent in 1962.

Table I-6.—PERCENT DISTRIBUTION OF FAMILIES AND UNRELATED INDIVIDUALS, BY FAMILY PERSONAL INCOME LEVEL IN 1962 DOLLARS, FOR SELECTED YEARS, 1929 TO 1962

Family personal income level (1962 dollars)	1962	1961	1960	1959	1947	1941	1929
Families and unrelated individuals millions..	58.6	57.3	56.1	55.3	44.7	41.4	36.1
Percent.....	100	100	100	100	100	100	100
Under \$2,000.....	12	12	13	13	16	27	31
\$2,000 to \$3,999.....	19	19	19	20	28	29	39
\$4,000 to \$5,999.....	21	22	22	22	26	22	15
\$6,000 to \$7,999.....	18	18	18	18	14	12	7
\$8,000 to \$9,999.....	11	11	11	11	7	4	3
\$10,000 to \$14,999.....	12	11	11	10	6	} 6	5
\$15,000 and over.....	7	7	6	6	3		

Source: Jeannette M. Fitzwilliams, "Size Distribution of Income in 1962," *Survey of Current Business*, April 1963, p. 15.

The figures in table I-6 on income distribution, adjusted for price changes, show that although some of the preceding analysis must be modified, the basic conclusions are substantially unchanged. Starting at the bottom, we find that even during the boom of the twenties about one-third of the families and individuals had incomes under \$2,000. This proportion dropped to about one-fourth (27 percent) at the outbreak of World War II, but was only 12 percent in 1962. Thus, in a third of a century, the proportion of families and individuals



with real incomes under \$2,000 has been reduced by about two-thirds. During the same period, there was also a significant bulge in the proportions in the middle and upper income levels. In 1962, for example, the \$6,000 to \$10,000 income group contained nearly three-tenths of the total, compared with only one-tenth in the prewar period. The purchasing power of this middle income group rose proportionately. The top income class—\$10,000 and over—has also had a fourfold rise since the depression.

The Census figures corresponding to the OBE figures previously discussed are presented in table I-7; but it is the comparison of both series at selected points in the distribution, shown in table I-8, that clearly portrays the similarity of the trends in these data. At the lowest quintile both series show a relatively large increase between 1950 and 1951, moderate gains during the next 2 years, and a drop during the 1954 recession. The years 1955 and 1956 show a relatively strong recovery in both series—stronger in Census than in OBE—followed by 4 years of slow-to-moderate growth. Similar patterns of change are also found at the middle and top quintiles.

### **Trends in income inequality**

Starting with Pareto in the latter part of the 19th century, interest in income distribution centered largely on the construction of Lorenz curves and the measurement of inequality rather than on other aspects of the subject. The early emphasis on the measurement of inequality may have been due partly to the fact that the statistical evidence was based on tax return figures for Western Europe, which could provide reasonable measures of income concentration, even though the figures did not represent the entire population.

However, since tax returns lacked the demographic and sociological data now commonplace in household surveys, it was not possible to analyze many of the factors that affect income distribution. A further reason for the early emphasis on the measurement of inequality was the search for broad generalizations about the nature of the income curve. One such formulation, the "Pareto Law," was discussed in much of the literature of the early 1900's.

During recent years emphasis has shifted from the measurement of inequality toward an analysis of various parts of the income curve and the causes that underlie changes in income distribution. During the past decade, for example, two congressional hearings were held on the low-income problem in the United States, and a good deal of research has gone into the measurement and analysis of the causes of poverty. Much other research has centered on measuring the financial returns from investments in education—a type of analysis first touched on in the twenties but not revived seriously until the sixties.

Figures showing trends in the inequality of income distribution between the outbreak of World War I and the years immediately after the end of World War II are found in the work of Simon Kuznets, using data from Federal individual income tax returns. The major findings with respect to trends in income inequality based on Kuznets' work are summarized in table I-9. The method

Table I-7.—FAMILIES AND UNRELATED INDIVIDUALS, BY TOTAL MONEY INCOME IN CURRENT AND CONSTANT (1959) DOLLARS:  
1947 to 1962

Total money income	1962	1961	1960	1959		1958	1957	1956	1955	1954	1953	1952	1951	1950	1949		1948	1947
				CPS	Census										CPS	Census		
CURRENT DOLLARS																		
Families and Unrelated Individuals																		
Number.....millions..	58.0	57.5	56.3	55.8	58.3	55.0	54.0	53.1	52.6	51.5	50.7	50.8	49.5	49.0	48.0	49.4	46.7	45.3
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$2,000.....	19.7	20.9	20.8	21.7	23.3	22.8	23.3	23.8	25.8	28.0	26.2	27.5	27.9	32.6	35.1	38.4	33.4	35.4
\$2,000 to \$3,999.....	18.1	19.0	19.3	19.9	18.7	21.3	21.9	22.9	25.4	26.9	27.8	31.9	33.9	36.3	37.7	35.1	38.0	38.2
\$4,000 to \$5,999.....	20.0	20.6	21.8	22.6	20.9	24.4	25.5	25.4	24.7	23.8	25.1	23.5	22.9	19.2	16.9	16.4	18.1	16.5
\$6,000 to \$9,999.....	27.3	26.2	26.1	25.6	25.1	23.1	22.3	21.3	18.8	16.4	16.4	13.7	12.2	9.1	8.1	7.5	8.2	7.6
\$10,000 to \$14,999.....	10.7	9.4	8.7	7.6	8.4	6.4	5.4	4.9	4.0	3.6	3.4	2.3	2.0	2.7	2.2	2.6	2.4	2.4
\$15,000 and over.....	4.1	4.0	3.1	2.6	3.7	2.0	1.5	1.7	1.2	1.2	1.1	1.1	1.0					
Median income.....	\$5,264	\$5,009	\$4,970	\$4,759	\$4,791	\$4,454	\$4,353	\$4,226	\$3,909	\$3,664	\$3,733	\$3,435	\$3,348	\$2,990	\$2,739	\$2,635	\$2,840	\$2,685
Families																		
Number.....millions..	47.0	46.3	45.4	45.1	45.1	44.2	43.7	43.5	42.8	41.9	41.2	41.0	40.4	39.8	39.2	38.3	38.5	37.3
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$2,000.....	11.6	12.7	13.0	13.4	13.1	14.3	14.9	15.4	17.5	19.8	18.5	19.3	20.5	24.7	27.0	29.3	25.1	27.4
\$2,000 to \$3,999.....	17.5	18.1	18.5	19.4	17.8	21.0	21.4	22.7	25.6	27.3	27.5	32.6	35.1	38.5	40.6	38.6	41.3	41.7
\$4,000 to \$5,999.....	21.4	22.2	23.4	24.9	23.3	27.1	28.6	28.6	28.2	27.5	29.1	27.3	26.4	22.6	19.8	19.9	21.0	19.3
\$6,000 to \$9,999.....	31.8	30.9	30.8	30.0	30.8	27.5	26.6	25.4	22.4	19.6	19.7	16.6	14.3	11.0	9.8	9.2	9.8	8.9
\$10,000 to \$14,999.....	12.8	11.3	10.6	9.1	10.5	7.6	6.5	5.9	4.8	4.4	4.1	2.8	2.4	3.3	2.6	3.1	2.9	2.7
\$15,000 and over.....	4.9	4.7	3.7	3.1	4.6	2.4	1.9	2.0	1.4	1.4	1.3	1.3	1.2					
Median income.....	\$5,956	\$5,737	\$5,620	\$5,417	\$5,660	\$5,087	\$4,971	\$4,783	\$4,421	\$4,173	\$4,233	\$3,890	\$3,709	\$3,319	\$3,107	\$3,083	\$3,187	\$3,031



Table I -7.—FAMILIES AND UNRELATED INDIVIDUALS, BY TOTAL MONEY INCOME IN CURRENT AND CONSTANT (1959) DOLLARS: 1947 TO 1962—Con.

Total money income	1962	1961	1960	1959		1958	1957	1956	1955	1954	1953	1952	1951	1950	1949		1948	1947
				CPS	Census										CPS	Census		
CONSTANT (1959) DOLLARS																		
Families and Unrelated Individuals																		
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$2,000.....	20.5	21.3	21.0	21.7	23.3	22.5	22.5	22.3	23.9	26.1	24.3	25.2	24.8	27.6	29.2	32.5	27.9	26.8
\$2,000 to \$3,999.....	18.8	19.6	20.0	19.9	18.7	21.2	21.0	21.1	23.0	24.2	24.7	28.3	29.1	28.8	31.1	28.6	31.3	30.6
\$4,000 to \$5,999.....	20.7	20.9	22.0	22.6	20.9	24.3	24.3	23.9	23.5	23.6	24.4	23.8	24.7	23.6	21.8	21.4	22.8	22.8
\$6,000 to \$9,999.....	26.5	25.6	28.8	25.6	25.1	23.7	24.2	24.4	22.5	19.9	20.5	17.9	16.9	15.3	13.8	13.1	13.5	14.5
\$10,000 and over.....	13.5	12.5	8.4	10.2	12.1	8.7	8.1	8.4	7.1	6.2	6.1	4.8	4.6	4.8	4.0	4.4	4.4	5.3
Median income.....	\$5,067	\$4,880	\$4,880	\$4,759	\$4,791	\$4,505	\$4,519	\$4,535	\$4,239	\$3,978	\$4,070	\$3,785	\$3,762	\$3,613	\$3,364	\$3,231	\$3,454	\$3,511
Families																		
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$2,000.....	12.2	13.2	13.2	13.4	13.1	14.1	14.2	14.2	16.0	18.1	16.8	17.2	17.9	19.8	21.3	23.9	19.8	19.1
\$2,000 to \$3,999.....	18.4	18.8	18.9	19.4	17.8	20.7	20.3	20.6	22.5	24.1	23.6	28.4	29.3	29.5	32.1	29.7	32.6	31.6
\$4,000 to \$5,999.....	22.4	22.6	23.7	24.9	23.3	26.7	27.1	26.3	26.6	26.7	27.8	27.2	27.8	26.7	25.1	25.1	26.2	26.1
\$6,000 to \$9,999.....	31.1	30.5	30.4	30.0	30.8	28.1	28.7	29.0	26.6	23.6	24.4	21.5	19.7	18.2	16.6	16.0	16.2	17.1
\$10,000 and over.....	16.0	15.0	13.8	12.3	15.1	10.3	9.6	10.0	8.3	7.5	7.3	5.8	5.4	5.7	4.9	5.3	5.2	6.1
Median income.....	\$5,747	\$5,597	\$5,547	\$5,417	\$5,660	\$5,143	\$5,148	\$5,129	\$4,817	\$4,530	\$4,627	\$4,277	\$4,164	\$4,036	\$3,807	\$3,772	\$3,868	\$3,957

Source: Current Population Survey data from U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, annual issues; and from Herman P. Miller, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963; and unpublished data of the Bureau of the Census. Decennial census data from 1960 *Census of Population—Supplementary Reports*, Series PC(S1)-18.

Table I-8.—SELECTED QUINTILE VALUES OF BUREAU OF THE CENSUS AND OFFICE OF BUSINESS ECONOMICS DISTRIBUTIONS OF FAMILIES AND UNRELATED INDIVIDUALS, BY INCOME LEVEL: 1947 TO 1962

[Minus sign ( - ) denotes decrease]

Year	Lower limit of second fifth				Lower limit of middle fifth				Lower limit of highest fifth			
	Census		OBE		Census		OBE		Census		OBE	
	Income	Increase from preceding year	Amount	Per- cent	Income	Increase from preceding year	Amount	Per- cent	Income	Increase from preceding year	Amount	Per- cent
1962.....	\$2,032	6.3	\$121	5.4	\$4,235	5.6	\$224	5.1	\$9,020	4.8	\$415	4.8
1961.....	1,911	-0.4	-7	0.7	4,011	0.5	20	1.1	8,605	3.7	306	3.7
1960.....	1,918	4.1	75	3.0	3,991	158	158	3.6	8,299	5.3	419	5.3
1959.....	1,843	5.8	101	3.1	3,833	191	191	4.9	7,880	4.9	366	4.9
1958.....	1,742	3.4	58	0.8	3,642	81	81	0.2	7,514	5.3	381	5.3
1957.....	1,684	2.1	35	2.0	3,561	109	109	2.6	7,133	2.6	180	2.6
1956.....	1,649	11.6	172	6.3	3,452	266	266	6.4	6,953	6.9	446	6.9
1955.....	1,477	9.7	130	8.6	3,186	216	216	5.9	6,507	5.3	325	5.3
1954.....	1,347	-6.5	-94	-2.7	2,970	-98	-98	-1.9	6,182	0.8	49	0.8
1953.....	1,441	2.7	38	4.1	3,068	204	204	4.4	6,133	7.3	419	7.3
1952.....	1,403	0.9	12	3.8	2,864	86	86	5.6	5,714	4.1	224	4.1
1951.....	1,391	27.5	275	15.5	2,778	366	366	13.2	5,490	11.1	550	11.1
1950.....	1,116	5.0	53	(X)	2,412	171	171	(X)	4,940	6.1	283	6.1
1949.....	1,063	-8.4	-97	(NA)	2,241	-84	-84	(NA)	4,657	-1.3	-62	-1.3
1948.....	1,160	1.8	21	(NA)	2,325	115	115	(NA)	4,719	3.4	157	3.4
1947.....	1,139	(X)	(X)	(NA)	2,210	(X)	(X)	(NA)	4,562	(X)	(X)	(X)
1946.....												
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1849.....												
1848.....												
1847.....												

NA Not available.

X Not applicable.

Source: Census data derived from U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, annual issues; OBE data from *Survey of Current Business*, April 1964; and *Historical Statistics of the United States: Colonial Times to 1957*.



used to prepare these data will be reported here only in brief, since it has been described elsewhere in detail.<sup>22</sup>

Briefly—and at the risk of oversimplification—Kuznets’ method involves the calculation, for each net income class shown annually in *Statistics of Income*, of the amount of net income per tax return and the population represented by the returns. Net income in this case is defined as the sum of wages and salaries, net income from self-employment, interest, dividends, rents, and royalties; excluded are capital gains and deductions from income except for business losses. The population represented by the returns includes those for whom income is reported as well as those listed as dependents. Per capita income is computed for each income class and the classes are ranked in descending order of per capita income. The cumulative totals of population and income recorded on the returns are then converted to percentages of the total population and of the aggregate income received, and the share of income received by the top 1 percent and the top 5 percent of the population is estimated by interpolation

Table I-9 shows that there was no change in the share of income received by the top 1 percent or the top 5 percent of the population between 1913 and 1930. In 1914, at the outbreak of war in Europe, the top 1 percent received between 13 and 14 percent of the income. This range prevailed in all but 2 years during the twenties and showed some tendency to rise during the latter part of the period. There was a slight drop in income inequality during the thirties, a marked drop during World War II, and relative stability throughout the early postwar years.

Table I-9.—PERCENTAGE SHARE OF TOTAL INCOME RECEIVED BY THE TOP 1 PERCENT AND TOP 5 PERCENT OF THE POPULATION: 1913 TO 1948

[Total income is defined here as the sum of employee compensation, entrepreneurial income, rent, interest, and dividends]

Year	Top 1 percent	Top 5 percent	Year	Top 1 percent	Top 5 percent
1948.....	8.38	17.63	1929 <sup>1</sup> .....	14.50	26.09
1947.....	8.49	17.41	1929 <sup>2</sup> .....	14.65	26.36
1946.....	8.98	18.20	1928.....	14.94	26.78
1945.....	8.81	17.39	1927.....	14.39	25.96
1944.....	8.58	16.62	1926.....	13.93	25.25
1943.....	9.38	17.75	1925.....	13.73	25.20
1942.....	10.06	18.94	1924.....	12.91	24.29
1941.....	11.39	21.89	1923.....	12.28	22.89
1940.....	11.89	22.71	1922.....	13.38	24.79
1939.....	11.80	23.45	1921.....	13.50	25.47
1938.....	11.45	22.80	1920.....	12.34	22.07
1937.....	12.84	23.80	1919 <sup>1</sup> .....	12.96	23.13
1936.....	13.14	24.35	1919 <sup>2</sup> .....	12.84	22.91
1935.....	12.05	23.73	1918.....	12.69	22.69
1934.....	12.48	24.88	1917.....	14.16	24.60
1933.....	12.48	25.34	1916.....	15.58	(NA)
1932.....	13.25	26.71	1915.....	14.32	(NA)
1931.....	13.31	26.27	1914.....	13.07	(NA)
1930.....	14.12	26.19	1913.....	14.98	(NA)

NA Not available.  
<sup>1</sup> Comparable with earlier years.  
<sup>2</sup> Comparable with later years.

Source: U.S. Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1957*, p. 167.

Trends in inequality of income distribution for recent years, based on data published by OBE and the Bureau of the Census, are shown in table I-10.<sup>23</sup> These figures show changes in income shares not only for the top income groups, as in the Kuznets series, but throughout the whole range of the distribution. Focusing first on the top income group during 1929-1947, we can see that the OBE series shows much the same picture as the previously described Kuznets series. According to OBE the share of the aggregate income received by the top 5 percent of families and individuals dropped progressively from 30 percent in 1929 to 21 percent in 1947; while for the same period the Kuznets series shows a drop from 26 percent to 17 percent in the share received by the top 5 percent of the population.

Neither the Census nor the OBE data show any change during the postwar period in income shares at any point in the income distribution. According to OBE the poorest 20 percent of the families may have received a very slight gain in the share of income during the war years; but since 1944 the share has been constant at about 5 percent. The Census data confirm this finding. Similarly, the wealthiest 5 percent of the families and individuals received a constant share (about 20 percent) of the aggregate in each year during the postwar period. This finding is also confirmed by the Census data (about 18 percent).

Even though all available evidence points to a stability in the overall income curve during the fifties, this stability may be more apparent than real. According to one theory, there is a good possibility that the equalization of incomes during World War II and the years immediately preceding the outbreak of the war continued into the postwar period but was obscured by other statistical factors. Simon Kuznets has summarized this theory as follows:

. . . even in the 1950's there may have been forces making for narrower income inequality, but their effects may have been offset by the greater fractionalization of consuming units at both ends of the age distribution of heads.<sup>24</sup>

In other words, the splitting up of family groups, made possible by the growing importance of Social Security payments, would tend to increase the inequality of income by creating a relatively large number of low-income families. Elsewhere, Kuznets has hypothesized that the increasing urbanization of the population has tended to increase inequality of income because, ". . . all other conditions being equal, the increasing weight of urban population means an increasing share for the more unequal of the two component distributions."<sup>25</sup>

These hypotheses were tested by constructing Lorenz curves for various demographic characteristics for each year in the postwar period, and ascertaining which groups, if any, have had appreciable changes in income distribution. A summary of selected characteristics based on these data is shown in table I-11; full details have been published elsewhere.<sup>26</sup> These figures show rather clearly that stability in the overall income curve reflects in large measure stability in the component distributions. For example, during 1947-1960, there was no change at all in the distribution of income groups among urban families; the



Table I-10.—DISTRIBUTION OF FAMILY PERSONAL INCOME AND TOTAL MONEY INCOME RECEIVED BY EACH FIFTH AND THE TOP 5 PERCENT OF FAMILIES AND UNRELATED INDIVIDUALS, FOR SELECTED YEARS, 1929 TO 1962

Year	Census (total money income)							OBE (family personal income)						
	Total	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth	Top 5 percent	Total	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth	Top 5 percent
1962.....	100.0	3.3	10.5	17.3	24.6	44.2	17.3	100.0	4.6	10.9	16.3	22.7	45.5	19.6
1961.....	100.0	3.3	10.0	17.0	24.5	45.2	18.2	100.0	4.6	10.9	16.3	22.7	45.5	19.6
1960.....	100.0	3.4	10.3	17.4	24.4	44.5	17.9	100.0	4.6	10.9	16.4	22.7	45.4	19.6
1959.....	100.0	3.4	10.4	17.6	24.3	44.3	17.6	100.0	4.6	10.9	16.3	22.6	45.6	20.0
1958.....	100.0	3.5	10.7	17.8	24.6	43.4	16.9	100.0	4.7	11.0	16.3	22.5	45.5	20.0
1957.....	100.0	3.5	10.8	18.0	24.7	43.1	16.8	100.0	4.7	11.1	16.3	22.4	45.5	20.2
1956.....	100.0	3.4	10.6	17.5	24.5	44.0	17.5	100.0	4.8	11.3	16.3	22.3	45.3	20.2
1955.....	100.0	3.3	10.6	17.4	24.6	44.2	18.0	100.0	4.8	11.3	16.4	22.3	45.2	20.3
1954.....	100.0	3.1	10.2	17.5	24.7	44.5	17.7	100.0	4.8	11.1	16.4	22.5	45.2	20.3
1953.....	100.0	3.2	10.8	17.5	24.6	43.9	17.6	100.0	4.9	11.3	16.6	22.5	44.7	19.9
1952.....	100.0	3.5	10.7	17.2	24.0	44.6	18.9	100.0	4.9	11.4	16.6	22.4	44.7	20.5
1951.....	100.0	3.5	11.2	17.5	24.3	43.6	17.6	100.0	5.0	11.3	16.5	22.3	44.9	20.7
1950.....	100.0	3.2	10.4	17.2	24.1	45.1	18.2	100.0	4.8	10.9	16.1	22.1	46.1	21.4
1949.....	100.0	3.3	10.5	17.1	24.1	45.0	17.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1948.....	100.0	3.6	10.7	17.1	23.9	44.8	18.1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1947.....	100.0	3.6	10.6	16.7	23.5	45.6	18.8	100.0	5.0	11.0	16.0	22.0	46.0	20.9
1946.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	100.0	5.0	11.1	16.0	21.8	46.1	21.3
1944.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	100.0	4.9	10.9	16.2	22.2	45.8	20.7
1941.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	100.0	4.1	9.5	15.3	22.3	48.8	24.0
1935-36.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	100.0	4.1	9.2	14.1	20.9	51.7	26.5
1929.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	100.0	12.5		13.8	19.3	54.4	30.0

NA Not available.

Source: OBE data for 1955-61 from U.S. Bureau of the Census, *Survey of Current Business*, April 1964; and for 1929-54 from *Historical Statistics of the United States: Colonial Times to 1957*; census data from Herman P. Miller, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.

top 5 percent and the top 20 percent received about the same share of the aggregate income in every year during the decade. Thus there is no evidence of an equalization in the distribution of urban incomes offset by an increase in the proportion of urban families; nor is there any evidence that urban incomes are more unequally distributed than rural incomes. In fact, for the money income figures shown in table I-11, the reverse is evidently true. But even when total income is used, farm incomes appear to be more unequally distributed than urban incomes.<sup>27</sup> The idea that farm incomes are more equally distributed than nonfarm incomes (which appears elsewhere in the literature on income distribution) is without solid foundation.<sup>28</sup>

Of course it could still be argued that the overall stability of income distribution for the urban population masks important changes which have taken place for various subgroups within that population. But this hypothesis—like the idea that farm incomes are more equally distributed than nonfarm incomes—does not appear to be supported by the facts. As shown in table I-11, income distribution within the urban population has not shifted even when that population is further classified by labor force status of wife, age of head, or size of family. During the postwar years, for example, among urban families where the wife was in the paid labor force, there was no change in the share of income received by the wealthiest fifth and the top 5 percent. The same is true for urban families with the wife not in the paid labor force.

However, it should be noted that incomes are much more equally distributed among families where the wife is working than where she is not working; the sizable increase in the proportion of families with working wives has therefore tended to decrease income inequality during the past decade.

The figures in table I-11 also suggest that the stability of income distribution during these years can be explained without reference to the increased tendency for older people to live alone. The figures for families headed by persons aged 35 to 44 and 45 to 54 show the same stability in income shares that appears in the total. It is conceivable, but not very likely, that the income distribution among younger families has been affected by the splitting off of elderly persons. This hypothesis cannot be tested; there is no way to add elderly persons back to family groups they would have joined had they lacked sufficient income to maintain their own households. In general, however, the incomes of elderly people tend to be quite low; it is doubtful that the addition of their income to the family total would have caused a significant change.

All available evidence presented in this chapter points to stability in the distribution of family income during the fifties, following a period of rather rapid change during World War II.

The data presented in table I-11 show that the Lorenz curves for most of the major component parts of the overall income curve were quite stable during the fifties. These curves, however, constitute only one element in determining the shape of the overall curve. Also important are the changes in the relative weights assigned to the various components and in their mean incomes. By



Table I-11.—GINI RATIO AND PERCENT OF AGGREGATE TOTAL MONEY INCOME RECEIVED BY THE TOP 20 PERCENT AND TOP 5 PERCENT OF FAMILIES, BY SELECTED CHARACTERISTICS: 1947 TO 1960

Year and income rank	All families								Urban families					
	Place of residence				Labor force status of wife		Age of head		4-person families	Labor force status of wife		Age of head		4-person families
	United States	Urban	Rural nonfarm	Rural farm	In paid labor force	Not in paid labor force	35 to 44 years	45 to 54 years		In paid labor force	Not in paid labor force	35 to 44 years	45 to 54 years	
TOP 20 PERCENT														
1960.....	42	41	42	49	37	43	39	41	40	36	43	39	40	39
1959.....	41	41	41	49	36	42	38	41	38	36	42	38	40	38
1958.....	41	40	39	47	36	42	38	43	39	35	42	38	41	39
1957.....	41	40	39	47	36	41	39	42	40	35	41	38	41	39
1956.....	41	40	41	48	36	43	39	42	39	35	41	39	40	38
1955.....	42	40	41	49	36	43	38	43	38	35	42	37	42	37
1954.....	42	40	42	50	36	43	39	42	(NA)	35	41	37	40	(NA)
1953.....	41	40	40	51	36	41	39	40	(NA)	35	40	37	39	(NA)
1952.....	42	41	41	50	38	43	39	43	40	37	41	38	42	39
1951.....	42	40	41	50	36	43	40	43	40	36	41	37	41	38
1950.....	43	41	43	51	37	44	42	44	41	35	42	(NA)	(NA)	(NA)
1949.....	43	41	42	51	37	44	40	44	41	37	41	39	41	40
1948.....	43	40	42	51	(NA)	(NA)	41	43	42	(NA)	(NA)	39	41	40
1947.....	43	41	41	54	(NA)	(NA)	42	42	41	(NA)	(NA)	40	40	40
TOP 5 PERCENT														
1960.....	17	17	16	20	13	19	16	16	16	13	20	16	16	16
1959.....	16	16	16	21	13	18	15	16	14	12	18	15	16	14
1958.....	16	16	15	19	12	17	15	18	15	12	18	15	18	15
1957.....	16	16	15	18	12	17	16	17	16	12	18	15	17	16
1956.....	16	16	16	18	12	18	16	17	16	12	18	16	16	15
1955.....	17	16	17	19	12	19	15	18	14	12	19	14	18	14
1954.....	16	16	17	20	13	18	15	17	(NA)	12	17	14	16	(NA)
1953.....	16	16	14	21	13	17	14	15	(NA)	12	16	14	15	(NA)
1952.....	18	18	16	23	15	19	15	19	17	15	18	15	19	17
1951.....	17	16	16	22	13	19	16	18	16	13	18	14	18	15
1950.....	17	16	18	23	13	19	20	(1)	17	12	19	(NA)	(NA)	(NA)
1949.....	17	16	17	23	13	18	15	18	17	13	17	15	16	16
1948.....	17	16	17	25	(NA)	(NA)	17	17	17	(NA)	(NA)	15	16	16
1947.....	18	16	16	25	(NA)	(NA)	17	17	17	(NA)	(NA)	16	16	16

1 Represents cases where the upper limit of the fifth or top 5 percent is in the open-end interval.

NA Not available.

Table I-11.—GINI RATIO AND PERCENT OF AGGREGATE TOTAL MONEY INCOME RECEIVED BY THE TOP 20 PERCENT AND TOP 5 PERCENT OF FAMILIES, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

Year and Income rank	All families										Urban families					
	Place of residence				Labor force status of wife		Age of head		4-person families	Labor force status of wife		Age of head		4-person families		
	United States	Urban	Rural nonfarm	Rural farm	In paid labor force	Not in paid labor force	35 to 44 years	45 to 54 years		In paid labor force	Not in paid labor force	35 to 44 years	45 to 54 years			
GINI RATIO																
1960.....	.369	.350	.360	.456	.294	.378	.325	.357	.330	.285	.363	.315	.334	.318		
1959.....	.366	.344	.356	.456	.285	.368	.315	.355	.306	.272	.346	.301	.331	.295		
1958.....	.354	.335	.329	.434	.281	.357	.311	.368	.311	.275	.339	.304	.344	.303		
1957.....	.351	.332	.331	.445	.283	.358	.319	.360	.317	.265	.332	.302	.336	.303		
1956.....	.355	.335	.351	.448	.280	.367	.319	.367	.321	.266	.336	.307	.327	.295		
1955.....	.366	.337	.354	.451	.280	.377	.310	.379	.306	.261	.340	.282	.348	.278		
1954.....	.373	.337	.372	.477	.289	.374	.329	.361	(NA)	.269	.340	.295	.324	(NA)		
1953.....	.360	.329	.341	.486	.283	.361	.315	.339	(NA)	.269	.327	.292	.310	(NA)		
1952.....	.374	.347	.353	.478	.312	.362	.318	.379	.326	.295	.335	.297	.340	.302		
1951.....	.361	.329	.356	.460	.289	.365	.335	.369	.318	.272	.329	.291	.338	.286		
1950.....	.375	.342	.380	.476	.300	.386	.364	.380	.342	.273	.350	(NA)	(NA)	(NA)		
1949.....	.379	.339	.365	.488	.307	.377	.341	.384	.341	.286	.336	.312	.341	.314		
1948.....	.369	.333	.358	.476	(NA)	(NA)	.343	.371	.346	(NA)	(NA)	.304	.335	.314		
1947.....	.378	.344	.348	.493	(NA)	(NA)	.353	.365	.341	(NA)	(NA)	.321	.336	.305		

NA Not available.

Source: Herman P. Miller, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.



the use of a standardization procedure it can be shown that changes in the weights assigned to the component distributions had no major impact on the overall distribution; that is, the actual overall distributions did not vary significantly from the distributions that would have been obtained if there had been no change in population weights throughout the period.

Table I-12 shows the actual income shares received by the top 5 percent and the top 20 percent of the families for 1947 to 1960, and shares obtained from standardization procedures applied to the data. Similar information is shown

Table I-12.—ACTUAL AND STANDARDIZED GINI CONCENTRATION RATIOS OF AND SHARES OF AGGREGATE TOTAL MONEY INCOME RECEIVED BY THE TOP 20 PERCENT AND TOP 5 PERCENT OF FAMILIES: 1947 TO 1960

Year and income rank	Actual  (1)	Standardized				
		Actual distributions with 1960 population weights			1960 distributions with actual population weights	
		Type of family (2)	Age of head (3)	Size of family (4)	Type of family (5)	Age of head (6)
TOP 20 PERCENT						
1960.....	42	42	42	42	42	42
1959.....	41	41	41	41	42	42
1958.....	41	41	41	41	42	42
1957.....	41	40	40	40	42	42
1956.....	41	41	41	41	42	42
1955.....	42	41	42	42	43	42
1954.....	42	41	42	(NA)	43	42
1953.....	41	40	41	(NA)	43	42
1952.....	42	42	42	42	43	42
1951.....	42	41	42	41	43	42
1950.....	43	42	(NA)	(NA)	43	42
1949.....	43	42	43	42	43	(NA)
1948.....	43	(NA)	42	42	(NA)	43
1947.....	43	(NA)	43	42	(NA)	43
TOP 5 PERCENT						
1960.....	17	17	17	17	17	17
1959.....	16	16	16	16	17	17
1958.....	16	16	16	16	17	17
1957.....	16	16	16	16	17	17
1956.....	16	16	16	16	17	17
1955.....	17	17	17	17	17	17
1954.....	16	16	17	(NA)	17	17
1953.....	16	15	16	(NA)	18	17
1952.....	18	17	18	17	17	17
1951.....	17	16	17	16	18	17
1950.....	17	17	(NA)	(NA)	18	17
1949.....	17	16	17	17	18	(NA)
1948.....	17	(NA)	17	17	(NA)	17
1947.....	18	(NA)	17	17	(NA)	17
GINI RATIO						
1960.....	.369	.369	.369	.369	.369	.369
1959.....	.366	.360	.363	.365	.370	.367
1958.....	.354	.348	.351	.349	.375	.373
1957.....	.351	.346	.349	.346	.375	.370
1956.....	.355	.353	.362	.355	.375	.372
1955.....	.366	.357	.365	.359	.378	.374
1954.....	.373	.363	.371	(NA)	.381	.372
1953.....	.360	.346	.356	(NA)	.376	.372
1952.....	.374	.359	.365	.363	.377	.373
1951.....	.361	.357	.361	.356	.379	.372
1950.....	.375	.366	(NA)	(NA)	.380	(NA)
1949.....	.379	.362	.371	.371	.382	.374
1948.....	.369	(NA)	.363	.360	(NA)	.378
1947.....	.378	(NA)	.365	.360	(NA)	.375

NA Not available.

Source: Table I-11. See text for explanation of computations.

in this table for Gini Concentration Ratios. The standardized figures for type of family (col. 2) were obtained in the following way. Percent distributions were obtained from the Current Population Survey for each year for each of the following 12 groups:

Urban—

Husband-wife families, wife in paid labor force

Husband-wife families, wife not in paid labor force

Families with other male head

Families with female head

Rural nonfarm—Same as for urban

Rural farm—Same as for urban

These percent distributions were weighted by the number of families in each group in March 1960, and the results were summed to obtain a new total and percent distribution for the country as a whole. The difference between the original and the adjusted (or standardized) distribution is entirely due to changes in the weights assigned to the component parts of the overall total.

A similar procedure using residence by age of head (in 10-year age groups) was applied to obtain the data in column 3; and it was again applied using residence and size of family (2 to 7 or more persons) for column 4. Table I-12 shows that in no case were the results based on the standardized distributions significantly different from the actual distributions. In no year did the share received by the top 5 percent or the top 20 percent of the families in the standardized distribution differ from the original distribution by more than one percentage point. The differences in the concentration ratios were equally small.

The figures shown in columns 5 and 6 were prepared by using the 1960 percent distributions for each group for each year and weighting the distributions by the actual number of families in the group. The results were then summed to obtain an adjusted (standardized) distribution for the country as a whole. In this case, the difference between the original and the standardized distribution for the country as a whole is entirely due to changes in the component distributions. Here again, the differences between the actual and the standardized distributions are not significant.

## NOTES

<sup>1</sup> Simon Kuznets, "Economic Growth and Income Inequality," *American Economic Review*, March 1955, p. 4.

<sup>2</sup> Dorothy S. Brady, "Research on the Size Distribution of Income," *Studies in Income and Wealth*, Vol. 13, National Bureau of Economic Research, New York, 1951, p. 4.

<sup>3</sup> Arthur F. Burns, *Looking Forward*, 31st Annual Report of the National Bureau of Economic Research, p. 4.

<sup>4</sup> Paul Samuelson, *Economics*, McGraw-Hill Book Co., Inc., New York, fifth edition, 1961, p. 114.

<sup>5</sup> *The Changing American Market*, Editors of *Fortune*, 1953, p. 52.



## NOTES—Continued

<sup>6</sup> For an entirely different view of trends in income distribution see Gabriel Kolko, *Wealth and Power in America*, New York, Praeger, 1962. Kolko concludes that "A radically unequal distribution of income has been characteristic of the American social structure since at least 1910, and despite minor year-to-year fluctuations in the shares of the income-tenths, no significant trend toward income equality has appeared" (p. 13). This conclusion is based on data for 1910 to 1937 prepared by the National Industrial Conference Board and for 1941 to 1959 by the Survey Research Center of the University of Michigan. Kolko states that the NICB data are the best material on income distribution by tenths for the period prior to 1941. This statement is very questionable. The NICB data were considered so poor by a panel of experts, including Selma F. Goldsmith and Simon Kuznets, that they were excluded from U.S. Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1957*, even though they had appeared in the earlier version of that book, *Historical Statistics of the United States, 1789-1945*. The figures for 1929 and 1935-1936 shown in table I-1 are thought to be much more reliable than those used by Kolko.

An examination of the figures used by Kolko shows that the share of income received by the highest tenth of income recipients dropped from 38 and 39 percent in 1921 and 1929, to 34 percent in 1927 and 1941, to 29 percent in 1958. He dismisses the figures for 1921 and 1929 without further explanation as representing exceptional years. He then concludes that the difference between the prewar and postwar figures can be eliminated when the latter are "corrected to allow for their exclusion of all forms of income in kind and the very substantial understatement of income by the wealthy." The figures in table I-1 include many types of income in kind and they have also been adjusted for underreporting of income. They do not include various items that accrue primarily to the wealthy which Kolko thinks should be added, notably expense accounts and undistributed profits. Also excluded from the concept and not mentioned by Kolko are various types of fringe benefits such as life insurance, medical care, health insurance and pension plans, as well as government services, which have been increasing rapidly in recent years and are widely distributed throughout the population. A study published in 1954 by Selma F. Goldsmith and her colleagues showed that incomes were more equally distributed in the postwar period than in 1929, even when allowance is made for undistributed corporate profits (Selma F. Goldsmith, et al., "Size Distribution of Income Since the Mid-Thirties," *Review of Economics and Statistics*, February 1954, p. 20). A more recent study shows that the addition of capital gains to the distribution increases the share received by the wealthiest 5 percent by only a fraction of a percentage point (Maurice Liebenberg and Jeannette M. Fitzwilliams, "Size Distribution of Personal Income, 1957-60," *Survey of Current Business*, May 1961, p. 14).

<sup>7</sup> Selma F. Goldsmith, et al., "Size Distribution of Income Since the Mid-Thirties," *Review of Economics and Statistics*, February 1954, p. 132; and *Survey of Current Business*, April 1964, p. 8.

<sup>8</sup> U.S. Bureau of the Census, *Statistical Abstract of the United States: 1964*, p. 416.

<sup>9</sup> For figures showing taxes paid as a percent of income by income class in 1958, see Tax Foundation, *Allocation of the Tax Burden by Income Class*, New York, 1960, p. 17. This source shows no variation in the percent of income paid in Federal, State, and local taxes for each income class below \$15,000. In each class, about one-fifth of the income was paid in taxes.

<sup>10</sup> Only brief reference to the conceptual problems associated with the interpretation of statistics on income distribution is made here. For a more complete discussion, see Dorothy S. Brady, "Research on the Size Distribution of Income," *Studies in Income and Wealth*, Vol. 13, National Bureau of Economic Research, New York, 1951.



## NOTES—Continued

<sup>11</sup> Simon Kuznets, op. cit., p. 3.

<sup>12</sup> See Office of Business Economics, *Income Distribution in the United States*, 1953, p. 20.

<sup>13</sup> Based on data of the Office of Business Economics. For a more complete description of the items included in family personal income see appendix A.

<sup>14</sup> Maurice Liebenberg and Jeannette M. Fitzwilliams, "Size Distribution of Personal Income, 1957-60," *Survey of Current Business*, May 1961, pp. 12-15.

<sup>15</sup> See, for example, Office of Business Economics, *U.S. Income and Output*, 1958.

<sup>16</sup> For a more detailed account of the definitions and procedures used to obtain the estimates shown in table I-2, see Selma F. Goldsmith, "Appraisal of Basic Data Available for Constructing Income Size Distributions," *Studies in Income and Wealth*, Vol. 13, National Bureau of Economic Research, New York, 1951. See also Selma F. Goldsmith, "Size Distribution of Personal Income," *Survey of Current Business*, April 1958.

<sup>17</sup> Estimate for 1929 from U.S. Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1957*, Series A 242; estimate for 1960 from U.S. Bureau of the Census, *Current Population Reports—Population Characteristics*, Series P-20, No. 119.

<sup>18</sup> U.S. Bureau of the Census, *Current Population Reports—Household and Family Characteristics*, Series P-20, No. 125.

<sup>19</sup> The OBE aggregates in table I-4 differ from those shown in previous tables because several adjustments were made in the OBE data before they could be compared with the census results. These adjustments included the subtraction of nonmoney items not covered in the census surveys and the addition of certain types of income covered in the census but not in OBE. A detailed description of these adjustments is presented in appendix A.

For a more technical discussion of the adjustment procedure see Selma F. Goldsmith, "The Relation of Census Income Distribution Statistics to Other Income Data," *Studies in Income and Wealth*, Vol. 23, Princeton University Press, 1958.

<sup>20</sup> For a further discussion of the comparability of CPS, Census, and OBE income aggregates and distributions, see appendix A.

<sup>21</sup> For an eloquent description of poverty in the United States, see Michael Harrington, *The Other America*, Macmillan Co., New York, 1962.

<sup>22</sup> Simon Kuznets, *Share of Upper Income Groups in Income and Savings*, National Bureau of Economic Research, New York, 1953.

<sup>23</sup> The figures shown in table I-10 are for families and unrelated individuals combined. OBE data for families alone are shown in table I-1 for selected years. Census data for families alone appear in U.S. Bureau of the Census, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, Technical Paper No. 8, by Herman P. Miller, 1963, table 1. The trends based on families alone are virtually identical with those based on families and unrelated individuals combined.

<sup>24</sup> Simon Kuznets, "Income Distribution and Changes in Consumption," *The Changing American Population*, Institute of Life Insurance, 1962, pp. 36-37.

<sup>25</sup> Simon Kuznets, "Economic Growth and Income Inequality," *American Economic Review*, March 1955, p. 8.

<sup>26</sup> U.S. Bureau of the Census, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, Technical Paper No. 8, by Herman P. Miller, 1963.

<sup>27</sup> Based on Lorenz curves constructed for data for farm-operator families and nonfarm families shown in Maurice Liebenberg and Jeannette M. Fitzwilliams, "Size Distribution of Personal Income, 1957-60," *Survey of Current Business*, May 1961.

<sup>28</sup> See Morris A. Copeland, "The Social and Economic Determinants of the Distribution of Income in the United States," *American Economic Review*, March 1947.



## CHAPTER II

# CHANGES IN THE COMPOSITION OF BROAD INCOME GROUPS: 1947 TO 1960

### Measures of income status

Chapter I discussed changes during the past 30 years in the number of families at different income levels for various periods of time, presenting the figures in current dollars and in dollars of constant purchasing power. The continuous drop in the proportion of families at the lower income levels provides an excellent indication of how widely the increases in real incomes have been distributed throughout the population. Only overall trends were discussed in chapter I; nothing was said about changes in the social and economic composition of the various income groups.

This chapter focuses on the characteristics of low-, middle-, and high-income families and on the changes in the composition of these groups during the postwar period. Have there been any significant trends in the kinds of families found at different income levels? Do farmers, the aged, and nonwhites each comprise a constant, increasing, or decreasing proportion of the low-income population? What are the dominant population components of the high-income groups, and how has the composition of these groups changed during the past 15 years? These are the kinds of questions to be considered next.

In discussing income status, one immediately faces the problem of defining poverty, affluence, or any of the other terms used to describe the various segments of the income curve. It is customary to start with the disclaimer that poverty (or affluence) is relative and cannot be defined objectively, and to state that the lines of demarcation are arbitrary and that the results are intended to serve as rough descriptions of the bottom or top groups in the income distribution. The first congressional investigation of low-income families ever conducted in the United States began with the explanation that the income limits used (under \$2,000 for families and under \$1,000 for unrelated individuals) were “. . . not intended to be . . . a definition of ‘low’ income.”<sup>1</sup> In 1961, Selma F. Goldsmith wrote:

I cannot claim to have made any progress whatsoever . . . [in defining poverty] . . . and the following discussion focuses on the composition of the income range under \$3,000 in terms of types of multiperson families, and under \$2,000 for types of unrelated individuals. These income points were chosen arbitrarily and are not to be taken as “definitions” of poverty.<sup>2</sup>

The present study is no exception to the rule. Two different methods of selecting income limits are examined in this chapter; both are arbitrary and have merit only as very general bases for exploring changes in broad segments of the income curve. Some economists who have thought about this problem deny the need for definitions—perhaps because they realize the futility of trying to define the undefinable. J. K. Galbraith, for example, starts his discussion of poverty in modern America by stating: “There is no firm definition of this phenomenon and . . . no precise definition is needed.”<sup>3</sup> This approach can be used so long as one works on a broad philosophical plane where the concepts are discussed in very general terms. But even Galbraith feels compelled eventually to define poverty in terms of a given point on the income scale. Indeed, once the task of describing the characteristics of high- and low-income families is undertaken, as in the present study, the need for definitions is imperative for the very practical reason that the variables used to describe each group must be numerically sequenced so that they can be analyzed quantitatively.

Much needless soul-searching can be avoided if we are reconciled at the outset to the fact that there is no objective definition of poverty any more than there is an objective definition of art or beauty. The standards of poverty are culturally determined. They can be arbitrarily defined for a given time and place, but they vary from place to place and they differ from time to time for a given place.

Over a decade ago Dorothy Brady wrote that:

. . . when faced directly with the problem of determining . . . [poverty] . . . for a given time and place, the theorist will deny the possibility of a unique answer and the propagandist will settle for any one of many solutions if the result suits his purposes.<sup>4</sup>

The prophetic wisdom of this remark can be seen most clearly by examining the way in which two recent writers on the subject have manipulated the same income figures to meet their particular needs.

In *The Affluent Society*, J. K. Galbraith presents the general thesis that American and European society has changed from a world of mass poverty to a world of affluence, but that changes in economic thinking have not kept pace with the change in events. “As a result,” he says, “we are guided, in part, by ideas that are relevant to another world . . .”<sup>5</sup> (that is, a world of poverty). Near the end of this book, when he comes to a discussion of poverty, Galbraith points to the median family income of about \$4,000 for the United States as evidence that American poverty can “. . . no longer be presented as a universal or massive affliction.”<sup>6</sup> His concept of poverty, which includes people whose “. . . income, even if adequate for survival, falls markedly behind that of the community. . . .” identifies the hard core of the poor as those families and individuals with incomes under \$1,000 in 1955.<sup>7</sup>

In 1962 Leon Keyserling published his study, *Poverty and Deprivation in the U.S.*, which he subtitled “The Plight of Two-Fifths of a Nation.” In this pamphlet Keyserling placed the poverty line at \$4,000—which, he states,



“ . . . many authorities fix as the amount required to place the multiple-person family above poverty in the American context today.”<sup>8</sup> In a later study, *Progress or Poverty*, published subsequent to the “attack on poverty” launched by the Johnson Administration, Keyserling changed his estimate of the poverty line to \$3,000 for families of two or more persons to conform with official figures in use at the time.<sup>9</sup> The difference between the two estimates (\$4,000 and \$3,000) is more apparent than real since the former pertains to OBE statistics which include nonmoney income whereas the latter pertains to money income figures prepared by the Bureau of the Census.

Without quarreling about the particular level selected or how it was selected, it is interesting to note that the same dollar value (\$4,000) was used within a period of several years by two outstanding economists to show on the one hand that poverty has been virtually eliminated, and on the other hand that poverty is very widespread, afflicting 1 out of every 5 persons in the United States.

Another recent attempt to measure the low-income population is Robert Lampman's excellent study for the Joint Economic Committee, *The Low-Income Population and Economic Growth*. Lampman there defines a low-income person as “. . . one with an income equivalent to that of a member of a four-person family with total money income of not more than \$2,500 in 1957 dollars.”<sup>10</sup> This definition attempts to relate family income to the “needs” of the family based on the number of persons and their ages. According to the definition, each member of a 6-person family would be classified in low-income status if the total family income in 1957 was under \$3,236. An unrelated individual with an income under \$1,157 would receive the same classification. The poverty line for this study, selected in a very arbitrary way, was largely an extension of the \$2,000 value used in the 1949 and 1955 studies of low-income families conducted by the Joint Economic Committee, converted to 1957 dollars and adjusted for size of family.<sup>11</sup> On the basis of this definition Lampman concludes that about 1 person out of every 5 was in low-income status in 1957.

The study consistently shows a high degree of sophistication and a keen awareness of the problems of interpretation in this difficult area; but when, at one point, Lampman asserts that “A more aggressive Government policy could hasten the elimination of poverty and bring about its virtual elimination in one generation,”<sup>12</sup> he demonstrates a basic misunderstanding of the relative nature of poverty. There can be no doubt that if the incomes of the poorest families were raised to the levels specified by Lampman, standards would also be raised—but large numbers of families would still be living at substandard levels. Dorothy Brady summarized this problem very well when she stated that:

. . . inadequate incomes can never be eliminated in any final sense because we as human beings always tend to judge incomes below the average as inadequate. And if this conclusion is correct, low incomes become a matter not of the size of the income but of the prevailing attitude toward the distribution.<sup>13</sup>

In this chapter several different measures of income status are used, each focusing on a different aspect of the problem. A brief review of the socioeconomic composition of broad income levels in 1960 is followed by a section showing families and unrelated individuals classified into several broad constant-dollar income levels (of 1959 purchasing power) for the years 1947 to 1960.<sup>14</sup>

Implicit in a tabulation such as this is the consideration of "poverty" and "affluence" as absolutes since no allowance is made for the increase in customary "needs" or standards over time. If this analysis had been extended back to 1929, for example, it would have shown that about one-third of the families and individuals had real incomes under \$2,000 (in terms of 1962 purchasing power), compared with only about one-eighth in 1962. At the turn of the century, it is very likely that the great majority of families had incomes well below \$2,000. The use of constant-dollar income limits, therefore, provides a rough measure of the proportion of families that could afford a given level of living at various points in time; but it makes no allowance for the fact that "needs" are relative, and are quite likely to be much different in a society where half the families and individuals have incomes under \$2,000, than they are in a society where only one-eighth of the families and individuals are at this low level.

In the final section of this chapter families are ranked by income and classified into fifths, and an analysis is made of changes in the composition of each fifth (and of the wealthiest 5 percent) for each year in the postwar period. Under this procedure the income limit is established for each year for the poorest 20 percent of all families, for the next 20 percent, and so on, and characteristics of families with incomes within the dollar limits for each fifth are compared from one year to the next. Only relative income position is considered; the fact that the income limit for the poorest 20 percent of all families increased from \$1,600 in 1947 to \$2,800 in 1960 is ignored. Some authorities do not regard this measure as very meaningful, since it creates the impression that there has been no increase in real incomes over time. Leon Keyserling, for example, states that:

. . . if we were to say that, with more than one-fifth of the American people living in poverty in 1960, we should define as living in poverty the lowest income fifth of the people in 1929, we would reach the palpably wrong conclusion that we have made no actual progress.<sup>15</sup>

The fact is, however, that this measure, by focusing on relative income position rather than on absolute income, takes into rough account the increases in "needs" that accompany rising real incomes. The poorest 20 percent of the families in the United States today may have higher standards of living than the wealthiest 20 percent of 50 years ago; they may also have better food, clothing, and shelter, and greater life expectancy than top-income groups in many other parts of the world. But these facts provide little consolation when the poorest families look about them and see how little they have in comparison with what their neighbors have. If poverty and affluence are relative, then surely in evaluating these concepts relative income position must have meaning.



### Socioeconomic composition of broad income groups, 1960

*An overall view.* Before examining changes in the composition of various income groups over time, it will be profitable to obtain an overall view of the social and economic characteristics of each group by examining the data for a recent year—1960. These are presented in table II-1. This background provides a frame of reference against which the changes over time can be compared. In the following section, changes in the socioeconomic composition of each income group are examined for selected years during the postwar period.

Families and unrelated individuals are not shown together in table II-1 because of the great differences in the characteristics, needs, and incomes of the two groups. As previously noted, families are defined by the Census Bureau as groups of two or more persons related by blood, marriage, or adoption, and residing together. The income of the family is the total amount of money received by all family members during the calendar year.<sup>16</sup> Unrelated individuals are persons (other than inmates of institutions) who were not living with relatives at the time each survey was made. As this definition implies, family incomes tend to be much higher than those of unrelated individuals because more than one person can be an income recipient. By the same token, family needs are also greater than those of unrelated individuals because a larger number of people have to be supported out of a given income. However, even a brief look at the characteristics of unrelated individuals shows other and perhaps more important reasons for their lower income status. What kinds of people live alone in a society where the great majority of the population resides in family groups? Figure II-1 provides an important part of the explanation.

About one-third of the unrelated individuals in March 1961 were aged 65 or over, and an additional 10 percent were under 25. Together, the young and the old constitute over two-fifths of all unrelated individuals. It is quite clear that a very large proportion of the unrelated individuals consists of widows and widowers who choose to maintain their own residences rather than move in with their children or enter old-age homes.

Younger persons constitute another important segment of the unrelated-individual population, accounting for about one-tenth of the total in March 1961. The median income of those in this group was also relatively low (\$1,700), largely because they lacked the skill and experience to command more than minimal wages.

Unrelated individuals in the most productive age groups (25 to 64) accounted for about three-fifths of the total. Although their incomes on the average were considerably higher than those of younger and older persons, by most standards they were quite low; in 1960, one-half had incomes under \$2,800. The relatively low incomes of this group were largely due to inability to work, failure to find work, or having low-paying jobs when they did work. Figure II-2 shows that in March 1961 about one-fourth of the unrelated individuals between 14 and 64 years old were not in the civilian labor force or were unemployed; an

Table II-1.—SELECTED CHARACTERISTICS OF FAMILIES AND UNRELATED INDIVIDUALS,  
BY TOTAL MONEY INCOME IN 1960

Selected characteristics	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over
FAMILIES					
Number.....thousands..	45,435	9,866	9,229	19,836	6,502
Age of Head					
Total.....	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	5.1	7.4	8.2	4.0	0.6
25 to 34 years.....	19.9	13.3	22.7	24.5	12.1
35 to 44 years.....	23.9	14.1	21.2	28.2	29.5
45 to 54 years.....	21.6	15.9	18.7	22.3	32.0
55 to 64 years.....	15.6	17.0	15.4	14.4	19.0
65 years and over.....	13.6	32.2	13.8	6.6	6.8
Median age.....years..	45.5	54.5	44.0	42.6	47.6
Size of Family					
Total.....	100.0	100.0	100.0	100.0	100.0
2 persons.....	32.7	52.1	34.0	25.4	23.8
3 persons.....	20.9	17.0	22.2	22.1	21.4
4 persons.....	20.4	11.9	19.2	24.2	23.8
5 persons.....	13.0	7.5	11.4	15.1	17.4
6 persons.....	6.6	4.0	6.5	7.5	8.0
7 persons or more.....	6.3	7.5	6.8	5.7	5.6
Average (mean) number of persons.....	3.71	3.30	3.68	3.86	3.93
Number of Earners					
Total.....	100.0	100.0	100.0	100.0	100.0
No earners.....	7.3	27.6	4.0	0.8	0.8
Earners.....	92.7	72.4	96.1	99.2	99.2
1.....	46.4	46.2	57.5	46.0	32.1
2.....	35.7	21.1	32.5	42.4	42.0
3 or more.....	10.6	5.1	6.1	10.8	25.1
Average (mean) number of earners.....	1.78	1.07	1.58	1.91	2.90
Type of Family					
Total.....	100.0	100.0	100.0	100.0	100.0
Male head.....	89.8	76.5	89.0	94.6	96.9
Married, wife present.....	87.2	72.9	86.1	92.4	94.7
Wife in paid labor force.....	26.4	13.4	21.9	30.9	38.9
Wife not in paid labor force.....	60.8	59.5	64.2	61.5	55.8
Other marital status.....	2.6	3.6	2.9	2.2	2.2
Female head.....	10.1	23.6	11.0	5.4	3.1
Number of Related Children Under 18					
Total.....	100.0	100.0	100.0	100.0	100.0
No children.....	40.3	53.4	39.2	33.7	42.6
1 child.....	19.4	15.6	20.8	20.7	19.1
2 children.....	18.5	11.9	18.0	21.9	18.8
3 children.....	11.4	8.2	10.2	13.2	12.3
4 children.....	5.5	4.0	6.2	6.3	4.6
5 children.....	2.4	2.8	2.8	2.3	1.4
6 children or more.....	2.5	4.2	2.8	1.9	1.2
Average (mean) number of children.....	1.44	1.26	1.47	1.56	1.29
Color and Farm-Nonfarm Residence					
Total.....	100.0	100.0	100.0	100.0	100.0
White.....	90.5	79.5	88.5	94.7	96.8
Nonfarm.....	83.7	64.9	80.5	91.2	94.1
Farm.....	6.7	14.6	8.1	3.5	2.7
Nonwhite.....	9.5	20.5	11.5	5.3	3.2
Nonfarm.....	8.6	16.6	11.1	5.2	3.2
Farm.....	0.9	3.9	0.4	0.1	-
Employment Status and Occupation of Head					
Total.....	100.0	100.0	100.0	100.0	100.0
Employed.....	78.1	52.2	75.0	87.5	93.0
Unemployed.....	5.0	6.7	7.2	4.3	1.8
In Armed Forces or not in labor force.....	16.9	41.1	17.9	8.2	5.2
Employed.....	100.0	100.0	100.0	100.0	100.0
Profess'l, managerial, & kind. wks., exc. farm.....	28.2	14.7	17.4	26.5	57.0
Self-employed.....	9.7	11.4	8.1	7.1	17.3
Salaried.....	18.5	3.3	9.3	19.4	39.7
Farmers and farm managers.....	6.5	24.1	8.0	2.4	1.9
Clerical, sales, and kindred workers.....	13.7	7.3	13.5	16.0	12.7
Craftsmen, foremen, and kindred workers.....	19.3	9.0	16.9	24.7	15.5
Operatives and kindred workers.....	18.3	14.3	24.2	20.5	8.4
Service workers, including private household....	7.3	14.1	10.1	5.6	3.0
Laborers, exc. mine.....	6.7	16.5	10.0	4.3	1.5

— Represents zero.



Table II-1.—SELECTED CHARACTERISTICS OF FAMILIES AND UNRELATED INDIVIDUALS, BY TOTAL MONEY INCOME IN 1960—Con.

Selected characteristics	Total	Under \$1,000	\$1,000 to \$2,999	\$3,000 to \$4,999	\$5,000 and over
UNRELATED INDIVIDUALS					
Number.....thousands..	10,900	3,652	3,628	2,125	1,495
Age					
Total.....	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	10.0	11.6	8.8	13.3	3.9
25 to 34 years.....	11.3	6.2	8.8	17.9	20.7
35 to 44 years.....	10.2	6.5	7.3	13.5	21.9
45 to 54 years.....	15.2	9.9	12.9	20.4	26.2
55 to 64 years.....	19.7	18.0	20.7	22.7	17.3
65 years and over.....	33.5	47.7	41.5	12.1	9.9
Median age.....years..	56.6	63.7	60.9	47.6	46.3
Earner Status					
Total.....	100.0	100.0	100.0	100.0	100.0
Nonearner.....	37.0	65.8	38.7	8.1	3.9
Earner.....	63.0	34.2	61.3	91.9	96.1
Sex					
Total.....	100.0	100.0	100.0	100.0	100.0
Male.....	38.5	27.3	37.0	43.0	63.0
Female.....	61.5	72.7	63.0	57.0	37.0
Color and Farm-Nonfarm Residence					
Total.....	100.0	100.0	100.0	100.0	100.0
White.....	86.3	80.2	86.8	90.4	93.8
Nonfarm.....	83.1	75.1	84.0	88.8	92.5
Farm.....	3.2	5.1	2.8	1.6	1.3
Nonwhite.....	13.7	19.8	13.2	9.6	6.2
Nonfarm.....	13.5	19.2	13.0	9.6	6.2
Farm.....	0.3	0.6	0.2	-	-
Employment Status and Occupation					
Total.....	100.0	100.0	100.0	100.0	100.0
Employed.....	57.9	33.4	53.5	84.1	90.9
Unemployed.....	4.6	5.1	4.5	5.0	2.7
In Armed Forces or not in labor force.....	37.6	61.5	42.5	10.9	6.4
Employed.....	100.0	100.0	100.0	100.0	100.0
Profess'l, managerial, & kind. wkrs., exc. farm.	25.8	24.5	15.9	23.3	44.6
Self-employed.....	4.9	4.9	6.9	2.5	5.4
Salaried.....	20.9	19.6	9.0	20.8	39.2
Farmers and farm managers.....	1.9	3.4	2.5	0.7	1.0
Clerical, sales, and kindred workers.....	23.0	12.1	21.7	32.2	22.7
Craftsmen, foremen, and kindred workers.....	5.9	1.7	3.1	5.7	14.0
Operatives and kindred workers.....	11.9	4.0	12.6	18.0	10.2
Service workers, including private household....	25.2	41.5	37.6	15.6	5.7
Laborers, exc. mine.....	6.2	12.7	6.6	4.6	1.7

— Represents zero.

Source: Derived from U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, No. 37, and unpublished data.

equal number were employed as service workers or as laborers in such low-paying jobs as waitresses, dishwashers, babysitters, migratory farm workers, and common laborers. Together these two major occupation groups accounted for nearly one-half of all unrelated individuals under age 65.<sup>17</sup>

For the reasons previously stated, families and unrelated individuals are classified separately by income levels, and different dollar values are used in analyzing the characteristics of each group. In view of the lesser “needs” of unrelated individuals, and their concentration at the lower income levels, the values used to designate the bottom and top groups are considerably lower than those used for families. Before analyzing each group separately, it is instructive to combine the distributions for families and individuals in order to see how the com-

Figure II-1.—UNRELATED INDIVIDUALS, BY TOTAL MONEY INCOME AND AGE: 1960

[Total=10.9 million]

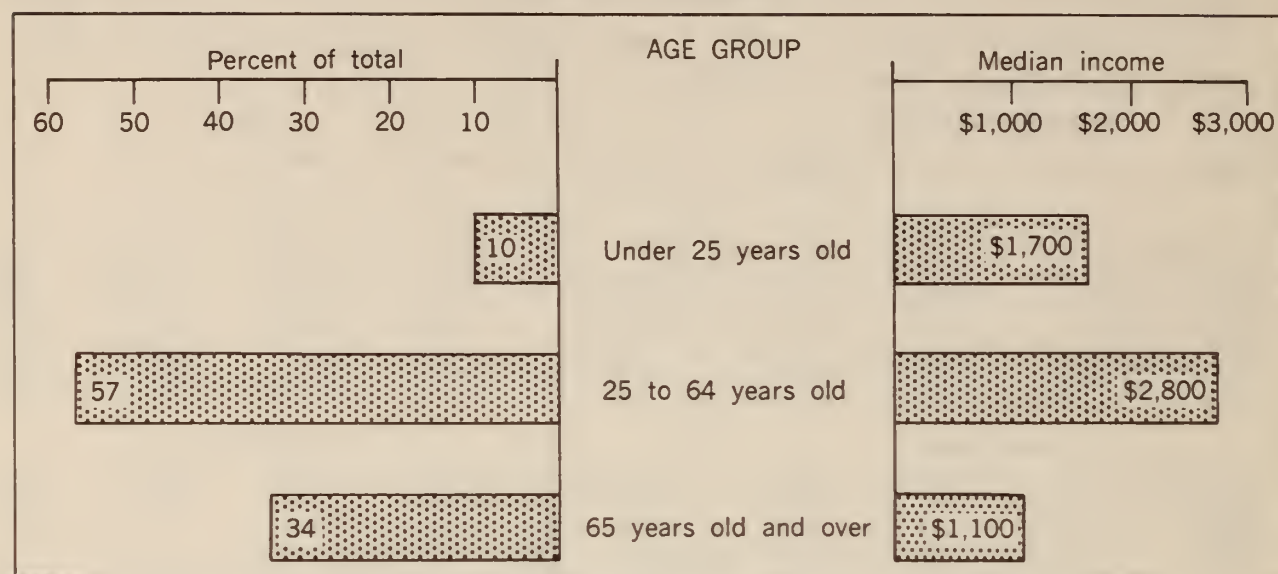
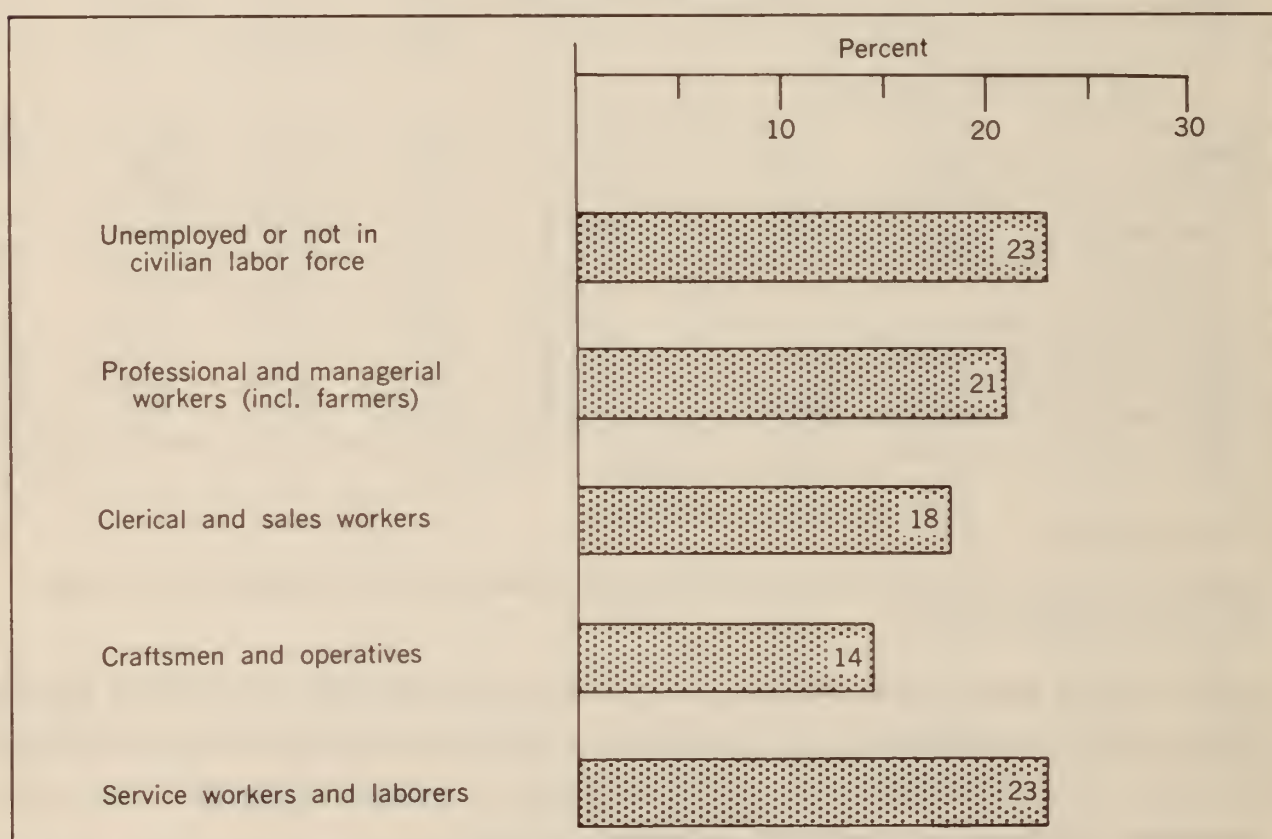
Source: U.S. Bureau of the Census, *Current Population Reports*, Series P-60, No. 37, table 4.

Figure II-2.—UNRELATED INDIVIDUALS 14 TO 64 YEARS OLD, BY EMPLOYMENT STATUS AND MAJOR OCCUPATION GROUP: MARCH 1961

[Total=7.2 million]

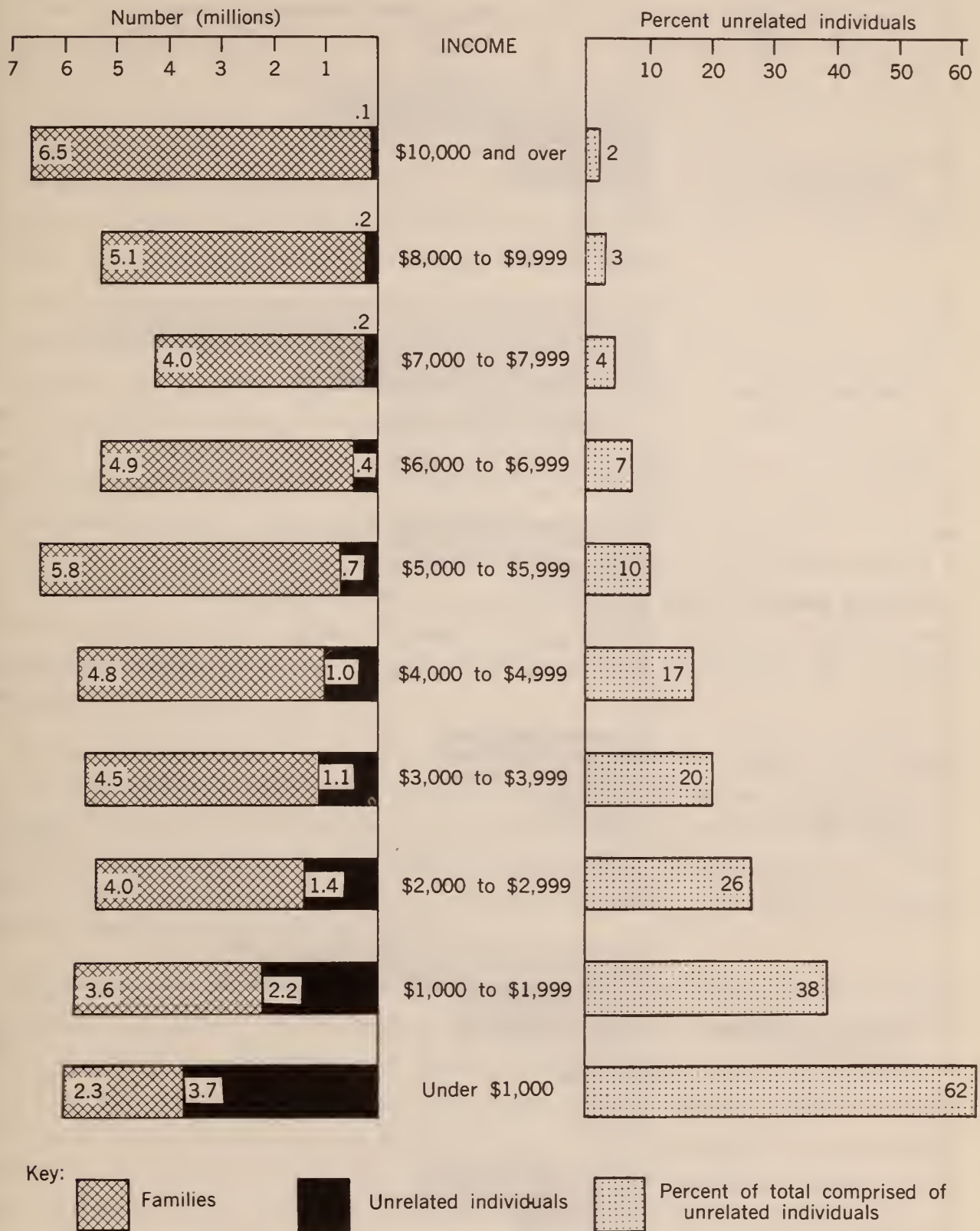


Source: Unpublished data of the Bureau of the Census.

position of each income group varies with respect to the proportion of unrelated individuals. This combination, presented in figure II-3, shows clearly the extent to which unrelated individuals dominate the bottom-income groups. About three-fifths of the total with incomes under \$1,000 were unrelated individuals; this proportion dropped to about two-fifths in the \$1,000 to \$2,000 level



Figure II-3.—FAMILIES AND UNRELATED INDIVIDUALS, BY TOTAL MONEY INCOME: 1960

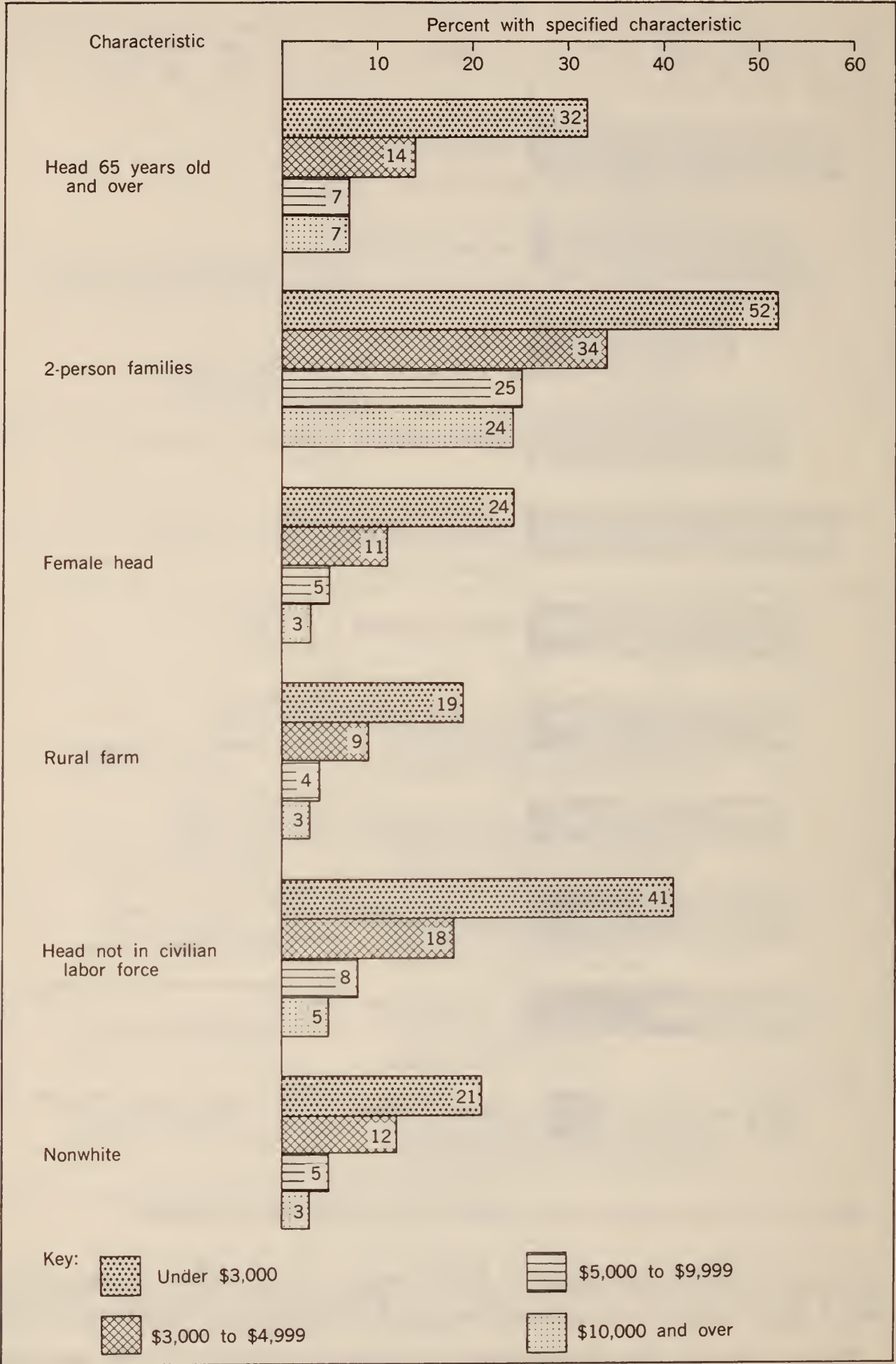


Source: U.S. Bureau of the Census, *Current Population Reports*, Series P-60, No. 37, table 5.

and to one-fourth in the \$2,000 to \$3,000 level. At the highest income levels, only 2 percent of the total with incomes over \$10,000 were unrelated individuals.

Turning now to the characteristics of families by broad income levels, as shown in table II-1 and figure II-4, we can see in sharp relief some of the major differences in the demographic and economic composition of the various income

Figure II-4.—SELECTED CHARACTERISTICS OF FAMILIES, BY BROAD TOTAL MONEY INCOME LEVELS: 1960



Source: Table II-1.



groups. At the lowest income levels, families having characteristics traditionally associated with low-income status predominate. Here are found the elderly, persons in broken homes, nonwhites, farm residents, the unemployed, those not working for other reasons, and those who lack occupational skill. Many low-income families suffer from a combination of these factors plus such others as inadequate education. Progressing toward the higher income levels, we find families such as those seen so often in newspaper ads and television soap operas. Very few of these families have aged or nonwhite heads; invariably a mother and father are present; the mother is often employed, and the father is a white-collar worker, well paid, and usually with some college training.

Perhaps the most distinctive characteristic of low-income families, as might be expected, is their low productivity, due primarily to the fact that a large proportion are headed by persons who, because of age, or lack of training or work experience, cannot command a high income. The average age of the heads of low-income families (55 years) was 7 years more than that of families with incomes over \$10,000. Underlying this large difference is the fact that about one-third of the heads of the low-income families were past the normal retirement age, and another 7 percent were youngsters just getting started in their lifework. Most of the younger group will, in time, advance to higher income levels; but the aged—dependent largely on retirement income—will probably continue to receive incomes far below those received by the working population.

At the highest income level only a negligible number of families were headed by persons under 25, and about 7 percent were headed by persons 65 or over. Together, young and old family heads accounted for 7 percent of the total for the top-income group, compared with 40 percent for the bottom group. Three-fifths of the family heads in the top-income group were concentrated in the ages of peak earning power, 35 to 54 years.

Another reason for low productivity among low-income families is that a large proportion comprise "broken homes" headed by a woman—often as a result of divorce, desertion, illegitimacy, or death of the husband. In 1960, about one-fourth of the families in the lowest income group had a female head, compared with only 3 percent for the top-income group. Nearly one-third of the families had children under 12 years old in the home, and the mothers—because they had to care for the children—were often unable to work outside the home; even those who did enter the labor market found that their lack of training, skill, or work experience tended to keep them in low-paying jobs.

The debilitating effects on low-income families of the demographic factors just cited can be most clearly seen in terms of their labor market behavior. In March 1961, 41 percent of the heads of families with incomes under \$3,000 were not in the civilian labor force (they were neither working nor looking for work), and most of them were undoubtedly past retirement age and living on relatively small pensions.

Another large group had female heads who did not attempt to find employment—either because they were needed in the home, or because there was no paid work they felt they could do.

In addition to the families where the head was not in the labor force, about 7 percent of the families were headed by a person who was not working, but looking for work. Thus, 1 out of every 2 families at the lowest income level was headed by a person who was not currently employed. The situation was markedly different for the top-income group; here only 5 percent of the families were headed by a person who was not in the civilian labor force, and only 2 percent of the family heads were unemployed.

When they are employed, the heads of low-income families tend to hold low-paying jobs. Farming was the single numerically most important occupation, accounting for 24 percent of the total. Another 15 percent, more or less, were employed in other kinds of low-paying jobs, as semiskilled factory workers, service workers, laborers, and the like. Together these occupation groups accounted for about two-fifths of all employed family heads in the lower income group.

Here again, there is a very striking contrast with the work done by heads of families with higher incomes. In the middle-income range, \$5,000 to \$10,000, about half the family heads were craftsmen or professional and managerial workers. At the highest income levels, professional and managerial work predominated, with nearly three-fifths of the family heads employed in these occupations.

One mitigating aspect of the figures shown in table II-1 is that low-income families also tend to be those with lower than average "needs." The amount of money needed to clothe, shelter, and feed a childless couple is far less than is needed by a growing family with young children; the growing family, in addition to current expenses, must also in many cases provide for future education. About half the families with incomes under \$3,000 were 2-person families headed by a person aged 55 years or over, with no children under 18 living in the household. These figures suggest that a very large proportion of the low-income families were older couples whose children had grown up and left home. The top-income group also had a relatively large proportion of families without children under 18 years (43 percent); but they were larger on the average than the low-income families, and had a much smaller proportion of heads over 55 years of age. On the basis of these figures, it seems very likely that a large proportion of the higher income families have grown children still living at home. Many of these young people work and contribute to the family income; at the same time, being adults they also increase the family income requirements. The absence of young children to care for also tends to permit mothers to work, and many of them do. Among higher income groups, about two-fifths of the wives were in the paid labor force, compared with a very much smaller proportion among the lower income groups. Here again, some working wives are probably



contributing to the cost of college education for their children; hence their "need" for income is considerably greater than that of low-income families where the grown children are much more likely to have left home.

Farm families also constitute a relatively large segment of the lower income groups. About one-fifth of the families with incomes under \$3,000 were farm residents, compared with only about 4 percent of the families in the middle and upper income brackets. Since the income definition used in the surveys conducted by the Bureau of the Census is restricted to cash income and excludes the value of free rent, food produced and consumed on the farm, and other non-money income received by farmers, the purchasing power and levels of living of these farm families are understated. Although there are no precise estimates of the amount of the understatement, there can be no doubt that if proper allowance for nonmoney income could be made, a significant proportion of farm families would be moved out of the bottom income level.

Differences in the composition of the various income groups of unrelated individuals can be explained largely by their age. About three-fifths of those with incomes under \$1,000 were either very young or very old, and as might be expected, relatively few did paid work. Since the great majority are not in the market for a job, unemployment is not a serious problem for this group. In March 1961, about 5 percent were unemployed, but three-fifths of the group were not in the labor force—presumably because most of them were retired or unable to work. Nearly 3 out of every 4 persons in this low-income group were women, probably widows for the most part. Employed people in this group worked at the most low-paying kinds of jobs, largely in the service trades.

Unrelated individuals with incomes over \$5,000 resembled more closely the general working population. About two-thirds were men. The great majority were concentrated in the most productive age groups, 25 to 54 years. Unemployment rates were relatively low (about 3 percent) and only a very small proportion (about 6 percent) were not in the labor force. Altogether only about one-tenth were not employed in March 1961; nearly half of those employed were professional or managerial workers, and another fourth were white-collar workers.

*Source pattern of family income.* Differences in the characteristics of families and unrelated individuals at various income levels are reflected in the types of income they receive. Table II-2 shows for 1960 the number of families and unrelated individuals in each of a number of income groups according to kind of income. Three major kinds of income are distinguished—wages and salaries; self-employment income, both from farming and other activities; and income other than earnings. Also shown are the number of families and unrelated individuals whose income comes from combinations of two or more of these sources.

Aggregate incomes received from these sources are shown in table II-3, which also presents additional detail for the following types of unearned income: Social Security payments and pensions; interest and dividends; rents and royalties;

Table II-2.—TOTAL MONEY INCOME IN 1960 OF FAMILIES AND UNRELATED INDIVIDUALS, BY SOURCE OF INCOME

Source of income	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over
FAMILIES					
Number.....thousands..	45,435	9,868	9,229	19,836	6,502
Percent.....	<sup>1</sup> 100.0	<sup>1</sup> 100.0	100.0	100.0	100.0
Earnings only.....	50.2	38.6	55.0	56.6	42.7
Wages or salary only.....	39.8	23.9	43.2	48.8	32.9
Self-employment income only <sup>2</sup> .....	3.9	6.6	4.5	2.2	4.1
Nonfarm.....	2.5	2.7	3.0	1.8	3.8
Farm.....	1.2	3.7	1.3	0.3	0.2
Wages or salary and self-employment income <sup>3</sup> ....	6.5	8.1	7.3	5.6	5.7
Wages or salary and nonfarm self-employment..	3.9	2.3	4.5	4.1	4.8
Wages or salary and farm self-employment.....	2.4	5.4	2.6	1.4	0.8
Earnings and income other than earnings.....	42.5	34.8	41.1	42.9	56.4
Wages or salary and other income.....	32.7	23.1	33.1	35.0	41.3
Self-employment income and other income <sup>4</sup> .....	3.8	6.9	3.0	2.2	4.9
Nonfarm.....	2.5	3.2	1.8	1.8	4.2
Farm.....	1.2	3.5	1.1	0.3	0.5
Wages or salary, self-employment income, and other income.....	6.0	4.8	5.0	5.7	10.2
Other income; no earnings.....	6.7	24.1	3.8	0.6	0.9
UNRELATED INDIVIDUALS					
Number.....thousands..	10,900	3,652	3,628	2,125	1,495
Percent.....	<sup>1</sup> 100.0	<sup>1</sup> 100.0	100.0	100.0	100.0
Earnings only.....	39.4	24.1	37.7	63.3	53.5
Wages or salary only.....	36.3	20.9	34.8	60.4	49.5
Self-employment income only <sup>2</sup> .....	2.4	2.7	2.4	1.7	3.0
Nonfarm.....	1.8	1.6	1.7	1.6	3.0
Farm.....	0.5	1.0	0.5	0.1	-
Wages or salary and self-employment income <sup>3</sup> ....	0.7	0.5	0.5	1.2	1.0
Wages or salary and nonfarm self-employment..	0.5	0.2	0.4	0.9	1.0
Wages or salary and farm self-employment.....	0.2	0.3	0.1	0.3	-
Earnings and income other than earnings.....	23.6	11.5	26.3	29.0	42.7
Wages or salary and other income.....	20.1	8.6	21.5	26.9	37.8
Self-employment income and other income <sup>4</sup> .....	2.8	2.5	4.1	1.7	2.7
Nonfarm.....	1.9	1.5	2.9	1.1	1.9
Farm.....	0.9	1.0	1.2	0.6	0.5
Wages or salary, self-employment income, and other income.....	0.7	0.4	0.7	0.4	2.2
Other income; no earnings.....	30.0	44.4	36.2	7.8	3.8

— Represents zero.

<sup>1</sup> Includes a relatively small number of families and unrelated individuals reporting no money income, not shown separately.

<sup>2</sup> Includes a relatively small number of families and unrelated individuals reporting both farm and nonfarm self-employment income, not shown separately.

<sup>3</sup> Includes a relatively small number of families and unrelated individuals reporting income from wages or salary and from both nonfarm and farm self-employment, not shown separately.

<sup>4</sup> Includes a relatively small number of families and unrelated individuals reporting income other than earnings and both nonfarm and farm self-employment, not shown separately.

Source: Derived from U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, No. 37, table 15, and unpublished data.

and unemployment compensation, assistance payments, and other types of income. On the basis of table II-3 some judgments can be formed on the relative importance of the various types of income at different income levels. What share of the total income received by the higher income families comes as a return to capital? How important are Social Security payments, pensions, unemployment compensation, and other types of transfer payments to the lower income groups? These are the kinds of questions that table II-3 is designed to answer.



Table II-3.—FAMILIES AND UNRELATED INDIVIDUALS, BY DETAILED SOURCE OF INCOME, AND BY TOTAL MONEY INCOME IN 1959

Source of income	Income level (numbers in thousands)					Aggregate income (millions of dollars)					Average (mean) income				
	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over	
FAMILIES															
All families.....	45,062	10,219	9,847	19,474	5,522	\$269,289	\$16,680	\$39,302	\$134,254	\$79,053	\$5,976	\$1,632	\$3,991	\$6,894	\$14,316
Percent.....	(1)	(1)	(1)	(1)	(1)	100.0	100.0	100.0	100.0	100.0	(1)	(1)	(1)	(1)	(1)
Wages or salary and self-employment income:															
Wages or salary.....	84.7	59.9	88.4	94.8	88.0	78.7	50.7	77.9	86.8	71.3	5,556	1,381	3,517	6,310	11,594
Nonfarm self-employment.....	13.0	9.5	11.3	12.3	24.8	9.7	3.3	6.6	6.7	17.7	4,468	562	2,324	3,763	10,219
Farm self-employment.....	7.7	16.8	8.4	3.6	3.8	2.0	5.7	3.9	1.2	1.5	1,545	554	1,864	2,346	5,750
Other income; no earnings:															
Social Security, veterans' payments, and pensions.....	20.2	33.7	19.0	15.4	14.3	4.4	26.1	6.9	2.7	1.6	1,307	1,262	1,442	1,191	1,627
Interest and dividends <sup>2</sup> .....	15.1	7.6	10.5	15.9	34.3	2.2	1.3	0.9	0.9	5.3	879	271	358	391	2,211
Rents and royalties.....	9.2	7.9	7.3	9.1	15.1	1.3	2.0	1.1	0.9	2.1	860	424	596	656	1,941
Unemployment, assistance, and other income <sup>3</sup> .....	14.3	22.1	16.4	11.1	7.4	1.7	11.0	2.7	0.8	0.6	691	810	664	515	1,062
Families with wages or salary, no self- employment income.....	32,842	4,913	7,638	16,373	3,918	\$206,813	\$9,247	\$30,690	\$113,012	\$53,863	\$6,297	\$1,882	\$4,018	\$6,902	\$13,748
Percent.....	(1)	(1)	(1)	(1)	(1)	100.0	100.0	100.0	100.0	100.0	(1)	(1)	(1)	(1)	(1)
Wages or salary and self-employment income:															
Wages or salary.....	100.0	100.0	100.0	100.0	100.0	93.4	78.9	91.7	95.4	92.7	5,883	1,486	3,682	6,586	12,745
Nonfarm self-employment.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Farm self-employment.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other income; no earnings:															
Social Security, veterans' payments, and pensions.....	16.3	22.0	16.0	15.1	14.9	2.9	11.8	4.7	2.5	1.4	1,133	1,010	1,177	1,121	1,313
Interest and dividends <sup>2</sup> .....	13.5	4.3	7.8	14.6	31.6	1.4	0.6	0.4	0.6	3.8	656	257	214	292	1,641
Rents and royalties.....	7.5	4.7	5.4	8.1	12.6	0.9	0.7	0.5	0.7	1.5	714	273	400	563	1,585
Unemployment, assistance, and other income <sup>3</sup> .....	14.6	24.3	18.0	11.5	8.7	1.4	8.0	2.7	0.8	0.6	591	617	604	491	996

See footnotes at end of table.

Table II-3.—FAMILIES AND UNRELATED INDIVIDUALS, BY DETAILED SOURCE OF INCOME, AND BY TOTAL MONEY INCOME IN 1959—Con.

Source of income	Income level (numbers in thousands)					Aggregate income (millions of dollars)					Average (mean) income				
	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over
FAMILIES--Con.															
Families with nonfarm, no farm self-employment income.....	5,528	862	1,046	2,298	1,322	\$42,377	\$1,278	\$4,172	\$15,825	\$21,102	\$7,666	\$1,482	\$3,988	\$6,886	\$15,962
Percent.....	(1)	(1)	(1)	(1)	(1)	100.0	100.0	100.0	100.0	100.0	(1)	(1)	(1)	(1)	(1)
Wages or salary and self-employment income:															
Wages or salary.....	57.6	42.0	48.5	65.8	60.8	31.4	34.7	30.7	39.3	25.4	4,175	1,255	2,527	4,113	6,661
Nonfarm self-employment.....	100.0	100.0	100.0	100.0	100.0	59.9	37.5	59.6	55.3	64.7	4,588	554	2,381	3,802	10,324
Farm self-employment.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other income; no earnings:															
Social Security, veterans' payments, and pensions.....	15.8	28.3	16.9	13.9	10.0	2.4	19.2	6.0	2.2	0.9	1,186	1,004	1,425	1,073	1,478
Interest and dividends <sup>2</sup> .....	22.1	7.1	14.9	20.7	40.1	3.4	0.8	1.0	1.3	5.6	1,172	(B)	276	419	2,227
Rents and royalties.....	14.2	9.7	12.5	12.9	20.6	2.3	2.7	1.6	1.5	3.1	1,258	(B)	502	776	2,407
Unemployment, assistance, and other income <sup>3</sup> .....	7.7	13.8	8.0	7.5	3.9	0.6	5.1	1.1	0.6	0.3	608	547	(B)	542	(B)
Families with farm self-employment income.....	3,457	1,718	828	699	212	\$13,110	\$2,251	\$3,188	\$4,722	\$2,949	\$3,792	\$1,310	\$3,851	\$6,755	\$13,910
Percent.....	(1)	(1)	(1)	(1)	(1)	100.0	100.0	100.0	100.0	100.0	(1)	(1)	(1)	(1)	(1)
Wages or salary and self-employment income:															
Wages or salary.....	61.0	49.1	66.7	82.5	63.7	41.1	31.5	37.3	52.1	35.0	2,559	840	2,156	4,265	7,646
Nonfarm self-employment.....	9.3	6.4	8.8	13.2	21.2	5.8	3.0	3.5	5.4	11.2	2,388	613	(B)	(B)	(B)
Farm self-employment.....	100.0	100.0	100.0	100.0	100.0	40.7	42.3	48.3	34.7	40.8	1,545	554	1,864	2,346	5,750
Other income; no earnings:															
Social Security, veterans' payments, and pensions.....	20.1	20.7	20.4	18.2	20.3	6.2	15.2	6.3	3.3	3.7	1,168	967	1,192	1,235	(B)
Interest and dividends <sup>2</sup> .....	16.3	10.1	18.8	22.6	35.9	2.8	1.9	1.6	1.6	6.9	661	239	332	477	(B)
Rents and royalties.....	10.9	8.1	9.3	16.0	22.6	1.9	2.2	1.7	1.8	2.2	673	351	(B)	764	(B)
Unemployment, assistance, and other income <sup>3</sup> .....	10.0	9.2	10.6	12.3	5.7	1.4	4.0	1.3	1.0	0.3	536	564	(B)	(B)	(B)

See footnotes at end of table.



Table II-3.—FAMILIES AND UNRELATED INDIVIDUALS, BY DETAILED SOURCE OF INCOME, AND BY TOTAL MONEY INCOME IN 1959—Con.

COMPOSITION OF BROAD INCOME GROUPS

Source of income	Income level (numbers in thousands)					Aggregate income (millions of dollars)					Average (mean) income				
	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over
FAMILIES--Con.															
Families with head under 65 years with no earnings.....	1,166	1,014	(B)	(B)	(B)	\$2,280	\$1,195	(B)	(B)	(B)	\$1,956	\$1,179	(B)	(B)	(B)
Percent.....	(1)	(1)	(B)	(B)	(B)	100.0	100.0	(B)	(B)	(B)	(1)	(1)	(B)	(B)	(B)
Wages or salary and self-employment income:															
Wages or salary.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nonfarm self-employment.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Farm self-employment.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other income; no earnings:															
Social Security, veterans' payments, and pensions.....	35.5	31.9	(B)	(B)	(B)	34.5	39.6	(B)	(B)	(B)	1,901	1,463	(B)	(B)	(B)
Interest and dividends <sup>2</sup> .....	11.0	6.3	(B)	(B)	(B)	23.2	2.2	(B)	(B)	(B)	4,127	(B)	(B)	(B)	(B)
Rents and royalties.....	10.6	9.2	(B)	(B)	(B)	6.1	5.0	(B)	(B)	(B)	1,136	(B)	(B)	(B)	(B)
Unemployment, assistance, and other income <sup>3</sup> .....	44.6	45.9	(B)	(B)	(B)	36.2	53.4	(B)	(B)	(B)	1,587	1,371	(B)	(B)	(B)
Families with head 65 years and over with no earnings.....	2,069	1,712	249	69	39	4,709	2,708	936	(B)	(B)	\$2,276	\$1,582	\$3,758	(B)	(B)
Percent.....	(1)	(1)	(1)	(1)	(1)	100.0	100.0	100.0	100.0	100.0	(1)	(1)	(1)	(1)	(1)
Wages or salary and self-employment income:															
Wages or salary.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nonfarm self-employment.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Farm self-employment.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other income; no earnings:															
Social Security, veterans' payments, and pensions.....	85.5	84.1	97.6	(B)	(B)	68.0	80.9	69.4	(B)	(B)	1,812	1,522	2,670	(B)	(B)
Interest and dividends <sup>2</sup> .....	22.1	15.5	40.6	(B)	(B)	15.6	2.9	14.2	(B)	(B)	1,604	297	1,316	(B)	(B)
Rents and royalties.....	18.9	15.2	34.9	(B)	(B)	9.0	5.0	12.5	(B)	(B)	1,079	519	(B)	(B)	(B)
Unemployment, assistance, and other income <sup>3</sup> .....	17.3	19.0	10.0	(B)	(B)	7.4	11.2	3.9	(B)	(B)	979	927	(B)	(B)	(B)

See footnotes at end of table.

Table II-3.—FAMILIES AND UNRELATED INDIVIDUALS, BY DETAILED SOURCE OF INCOME, AND BY TOTAL MONEY INCOME IN 1959—Con.

Source of income	Income level (numbers in thousands)				Aggregate income (millions of dollars)						Average (mean) income				
	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over	Total	Under \$3,000	\$3,000 to \$4,999	\$5,000 to \$9,999	\$10,000 and over
UNRELATED INDIVIDUALS															
Total.....	10,702	3,833	3,712	1,917	1,240	\$25,162	\$1,687	\$6,581	\$7,397	\$9,497	\$2,351	\$440	\$1,773	\$3,859	\$7,659
Percent.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	100.0	100.0	100.0	100.0	100.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Wages or salary and self-employment income:															
Wages or salary.....	56.3	26.9	60.1	90.3	82.9	67.4	24.8	55.3	85.6	69.2	2,817	405	1,632	3,655	6,393
Nonfarm self-employment.....	5.3	3.6	4.9	5.0	12.3	7.3	1.0	2.9	3.7	14.2	3,235	122	1,053	(B)	8,948
Farm self-employment.....	2.2	2.8	2.2	1.1	2.3	1.0	(B)	1.1	0.2	1.8	1,084	-5	(B)	(B)	(B)
Other income; no earnings:															
Social Security, veterans' payments, and pensions.....	28.8	32.8	40.4	9.5	11.7	12.6	47.1	25.1	3.3	5.1	1,028	631	1,100	1,355	3,311
Interest and dividends <sup>2</sup> .....	15.7	8.5	16.4	19.2	30.2	5.0	3.7	4.9	3.5	6.4	745	191	527	713	1,616
Rents and royalties.....	10.1	8.6	11.4	9.2	12.5	3.1	5.0	4.0	2.6	2.5	722	257	621	1,110	1,543
Unemployment, assistance, and other income.....	12.5	14.4	15.4	7.5	5.2	3.6	18.5	6.8	1.0	0.8	676	564	779	504	(B)

— Represents zero.

B Base less than 100,000.

<sup>1</sup> Percentages and averages not additive.<sup>2</sup> Includes income from interest, dividends, annuities, and estates and trusts.<sup>3</sup> Includes income from unemployment compensation, sickness benefits, public assistance, private assistance, dependency allotments, and income not specified in other sources.

Source: Unpublished data of the Bureau of the Census.



Since many low-income families are headed by retired persons or by those who for other reasons are not working or looking for work, they might be expected to depend a good deal on old-age pensions, welfare payments, and other types of income not related to their current production. Even more likely to depend on such types of income are the unrelated individuals at the low-income levels, since their labor force participation rates are even below those of heads of low-income families. As shown in table II-2, about one-fourth of the families with incomes under \$3,000 depended entirely on income other than earnings, while an additional one-third had some earnings as well as other income. In the absence of aggregate incomes for this group, it is difficult to make definitive judgments about the relative importance of each type of income described. At the higher income levels, the unearned income was probably small, on the average, and tended to supplement earnings which provided the main source of family livelihood. This was probably also true for many of the low-income families where receipts such as unemployment compensation were sporadic and quite small, on the average. However, in a large proportion of these cases, it is probably also true that pensions, assistance, and other forms of unearned income were the principal source of family income, and were supplemented by small amounts of earnings.

The dependence of low-income unrelated individuals on income other than earnings is, of course, suggested by the fact that the great majority do not engage in paid employment. Table II-2 shows that about one-fifth of all unrelated individuals with incomes under \$1,000 reported no cash income during 1960. Some may have been living on withdrawals from savings, others may have been recently widowed and were supported during the preceding year by their husbands, and still others may have failed to report small amounts of income actually received. Somewhat more than two-fifths of the low-income group had only unearned income.

On the other hand, among families with incomes of \$10,000 or more there were very few without earned income. Only 1 family in 100 lacked any earned income. The other 99 families had earned income, sometimes with and sometimes without other income. Two-fifths had only earned income, and more than half had both earned and other income.

The pattern described for families with incomes over \$10,000—about 14 percent of all families in 1960—applied also to those with incomes over \$15,000. These families represented the wealthiest 4 percent of the total and were much nearer the very top of the income distribution; but even at this relatively high income level, only about 2 percent of the families derived all their income from sources other than current employment, and as much as one-third depended entirely on earnings.<sup>18</sup>

Although table II-2 provides a useful broad view of the source pattern of receipts at different income levels, it is deficient in two important respects. First, it shows only numbers and distributions of families, and not the aggregate

amount of income received; and, without aggregate incomes, it is difficult to assess the importance of each type of income. A large proportion of families at all income levels receive both earnings and unearned income, and it is important, therefore, to know the relative amounts of each in order to interpret the source pattern of receipts.

A second defect of table II-2 is that it does not show the various components of other income. Since there are marked differences in the specific types of income received at the various income levels, it would be useful to identify, within the unearned income component, the amount that represents interest, dividends, rents, and other returns to capital, as distinguished from Social Security payments, pensions, assistance, and other transfer payments. Returns to capital have much in common with earnings since they represent, for the most part, claims against current output that are determined in the market as a result of the ownership of assets. Transfer payments, on the other hand, generally represent attempts by society to change the market distribution of income by providing a return even where no current service has been performed.

Both of these defects of table II-2 are remedied in table II-3 which shows aggregate incomes and greater detail with respect to types of income.

About half of all the money received by families with incomes under \$3,000 came from wages and salaries—the single most important source of income at this level. At higher income levels, wages and salaries constitute a far larger share of the total. At the \$3,000 to \$5,000 level, about three-fourths of all income came from wages and salaries; and at the \$5,000 to \$10,000 level, nearly nine-tenths of the income came from this source. Even the wealthiest families depended much more on wages and salaries than did those in the bottom-income groups. For low-income families, transfer payments—including Social Security, veterans' payments, pensions, unemployment compensation, and various types of assistance—ranked next to wages and salaries as a major source of receipts, with nearly 40 percent of their income derived from these sources. For the bottom-income group—as might be expected—interest, dividends, and rent were quite unimportant and accounted for only about 3 percent of the aggregate.

Families with incomes over \$10,000 also depended primarily on wages and salaries; about 70 percent of their income came from this source, with an additional 18 percent from self-employment in a nonfarm business or professional practice. The latter, of course, has elements of returns to both labor and capital, since some of the income received represents a return on assets invested in a business enterprise. Receipts from interest, dividends, and rent represent a negligible part of the income received even by this top-income group, although such receipts might be much more significant if income sources for the wealthiest 1 percent of the families were examined. Among families with incomes over \$10,000, only 5 percent of the aggregate came from interest and dividends and only 2 percent from rents, royalties, and related sources. As might be expected, the share accounted for by transfer payments was negligible.



Significant differences appear in the source pattern of income when families are classified by type as well as level of income. Five different categories of families have been so classified: (*a*) those with farm self-employment income (with or without other income); (*b*) those with nonfarm self-employment income but without farm income; (*c*) those with wages or salaries but without self-employment income; (*d*) those without earnings with head aged 65 years or over; and (*e*) those without earnings with head under 65 years.

About 40 percent of the aggregate income received by families with farm self-employment came from the operation of a farm; the remainder came from other sources. Families with farm income received as much from wages and salaries as from farming. These patterns, however, varied considerably by income level. Families whose total incomes were under \$3,000 derived about two-fifths of their income from farming and about one-third from wages and salaries. Earnings for this group accounted for only about three-fourths of total receipts; the balance came from unearned income, largely transfer payments.

The pattern of receipts for the \$3,000 to \$5,000 income level was not very much different from that for the low-income group, except that farm income and wages and salaries accounted for a somewhat larger proportion of the total and unearned income declined in relative importance. At the \$5,000 to \$10,000 level, only one-third of the income came from farm operations, and about one-half from other work. At the highest income level, the pattern was similar to that observed for families with incomes under \$3,000 except that unearned income was largely derived from returns to capital rather than from transfer payments. One caution that must be exercised in interpreting these data is that the level of total income is not necessarily related to the source pattern used as the basis for classification. For example, some of the families with farm self-employment income whose total incomes are over \$10,000 may depend primarily on wage or salary income and may nominally operate a farm for the psychological value they derive from this activity or for other reasons. Although all such families would have income from farming, their total income may come primarily from other sources.

Families with nonfarm self-employment income derived about 60 percent of their income from the operation of a business, about 31 percent from wages and salaries, and about 9 percent from unearned income. Here again, the variations by income level are quite striking. At the lowest income level approximately equal amounts were derived from business operations and wages and salaries; about one-fourth of the total came from unearned income, primarily transfer payments. Many of these families are undoubtedly the proprietors of small "mama-papa" stores that barely manage to stay in existence. At the middle-income levels, income from business operation increased in relative importance and there was also some tendency for wages and salaries to increase at the expense of unearned income. At the top-income level, business operations accounted for about two-thirds of all income and wages and salaries represented one-fourth of the total. Property incomes also increased significantly at this level and accounted for about one-tenth of total receipts.



Wage-earner families (those with wages and salaries but no self-employment income) depended in general on receipts from employment; about nine-tenths of all income they received came from wages and salaries and the balance was spread almost equally among the various sources of unearned income. At the lowest income level about one-fifth of the income came from transfer payments; but at the other levels there were no striking variations in the sources of income.

The pattern of receipts for families without earnings varied markedly by income level and age of head. Low-income families headed by a person over 65 depended primarily on transfer payments; about 80 percent of their income was derived from Social Security and other pensions, and about 10 percent from assistance and related sources. For this group, property incomes were relatively unimportant and accounted for only about one-tenth of their receipts.

Families without earnings headed by a person under 65 years old had entirely different patterns of receipts when classified by income levels. Those with incomes under \$3,000 derived almost all their receipts from transfer payments; about half of their income came from unemployment compensation, public assistance, and similar sources, and about two-fifths from Social Security, veterans' payments, and other pensions.

### **Composition of broad income groups in constant dollars: 1947 to 1960**

Changes in the composition of low- and high-income families must be viewed in the light of changes in the composition of families at all income levels that took place during the fifties. There was little change during this period in some demographic characteristics such as age, sex, and color of the family head. The proportions of white and nonwhite families, "normal" and broken families, and families in each age group were not much different in 1960 than they were 14 years earlier. Even the classification of families by size was relatively stable, although there was a persistent decline in the relative number of 3-person families and corresponding increase in larger families (see table II-4).

In contrast to the demographic characteristics which were relatively stable, the economic characteristics changed substantially during these years. The most dramatic change was in the employment of married women. Prior to the outbreak of the second world war, married women started to enter the labor market in increasing numbers. This trend was accelerated by wartime labor shortages, and it continued throughout the postwar period, despite increases in fertility and family responsibilities.

As table II-4 shows, the proportion of wives in the paid labor force increased from 19 percent in 1950 to 26 percent in 1960. Many factors contributed to this change. One major factor was the relatively full employment situation throughout the postwar period with the concomitant high demand for labor. In addition, the increased social acceptance of women as workers encouraged women to seek jobs, and the widespread use of labor-saving devices made it possible for many to take on the added burdens of a paid job in addition to their other duties. Indeed, the general attitude appears to be that housekeeping is



Table II-4.—FAMILIES BY TOTAL MONEY INCOME IN CONSTANT (1959) DOLLARS, BY SELECTED CHARACTERISTICS: 1947 TO 1960

COMPOSITION OF BROAD INCOME GROUPS

Selected characteristics		1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
ALL FAMILIES															
Age of Head															
Number.....	thousands..	45,435	45,062	44,202	43,714	43,445	42,843	41,934	(NA)	41,020	40,442	39,822	39,193	38,537	37,279
Total.....		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....		5.5	5.4	5.5	5.2	5.2	5.0	5.0	4.4	5.2	4.8	4.9	5.3	5.4	5.0
25 to 34 years.....		20.8	21.3	21.8	22.1	22.3	22.1	22.0	23.1	23.6	24.0	23.2	23.1	22.9	22.8
35 to 44 years.....		23.9	24.6	24.3	24.1	24.4	24.9	24.6	24.6	23.8	24.5	23.6	23.9	24.3	24.0
45 to 54 years.....		21.5	21.0	21.1	21.2	20.5	20.4	19.9	19.8	19.8	18.9	20.4	20.4	20.1	20.7
55 to 64 years.....		15.3	14.4	14.4	14.5	14.7	14.8	15.3	15.1	14.6	15.4	16.0	15.5	15.3	16.0
65 years and over.....		13.0	13.4	13.0	12.9	12.8	12.9	13.2	13.1	13.0	12.3	11.9	11.9	11.9	11.5
Size of Family															
Total.....		100.0	100.0	100.0	100.0	100.0	100.0	(NA)	(NA)	100.0	100.0	100.0	100.0	100.0	100.0
2 persons.....		32.3	31.4	31.6	32.1	32.3	31.7	(NA)	(NA)	32.9	33.5	32.8	32.2	31.1	30.6
3 persons.....		20.7	21.4	21.3	21.5	21.6	22.8	(NA)	(NA)	24.3	24.8	24.9	25.6	26.1	25.2
4 persons.....		20.8	20.7	20.7	20.5	20.9	21.4	(NA)	(NA)	20.8	20.2	20.8	19.3	20.6	20.1
5 persons.....		13.2	13.6	13.2	12.6	12.7	12.4	(NA)	(NA)	11.3	11.3	11.4	11.5	11.0	11.4
6 persons.....		6.9	6.7	6.6	6.8	6.4	6.0	(NA)	(NA)	5.7	5.1	5.3	5.9	5.7	6.1
7 persons or more.....		6.2	6.2	6.5	6.6	6.0	5.8	(NA)	(NA)	5.1	5.1	4.9	5.4	5.6	6.6
Number of Earners															
Total.....		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No earners.....		6.9	7.2	6.8	6.2	6.0	6.1	7.0	6.3	6.2	5.8	6.4	5.3	5.3	6.1
1 earner.....		46.6	47.8	48.3	48.6	48.6	50.9	52.7	51.7	52.5	55.2	54.5	54.6	54.2	59.0
2 earners.....		35.8	34.8	34.9	35.0	35.4	33.5	32.2	32.4	32.6	31.1	30.4	30.8	31.0	25.8
3 earners or more.....		10.7	10.2	10.0	10.2	10.0	9.5	8.1	9.6	8.7	7.9	8.7	9.3	9.5	9.1
Type of Family															
Total.....		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male head.....		89.9	90.4	90.4	90.6	90.3	90.1	90.1	90.6	90.6	90.2	90.0	91.1	90.5	90.0
Married, wife present.....		87.4	87.7	87.6	88.0	87.8	87.1	87.2	87.7	87.5	87.2	87.1	87.9	87.3	86.8
Wife in paid labor force.....		26.3	24.8	24.7	24.7	24.1	22.6	21.4	21.0	22.5	20.0	19.8	18.6	(NA)	(NA)
Wife not in paid labor force.....		61.1	63.0	62.9	63.3	63.7	64.5	65.7	66.7	65.0	67.2	67.3	69.3	(NA)	(NA)
Other marital status.....		2.6	2.6	2.8	2.6	2.6	3.0	2.9	2.9	3.2	2.9	3.0	3.2	3.2	3.3
Female head.....		10.1	9.6	9.6	9.4	9.7	9.9	9.9	9.4	9.4	9.8	10.0	8.9	9.5	10.0

NA Not available.

## INCOME DISTRIBUTION IN THE UNITED STATES

Table II-4.—FAMILIES BY TOTAL MONEY INCOME IN CONSTANT (1959) DOLLARS, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
ALL FAMILIES—Con.														
Number of Related Children Under 18														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No children.....	39.4	38.7	38.5	39.0	39.4	39.5	40.7	41.0	41.3	41.9	41.8	42.9	42.3	41.8
1 child.....	19.5	19.8	20.0	19.8	19.8	20.4	19.8	21.7	22.6	23.0	23.4	23.4	24.1	24.1
2 children.....	18.8	19.0	19.3	19.4	19.5	20.2	19.9	19.1	18.6	18.3	18.4	17.6	17.9	18.2
3 children.....	11.6	12.0	11.5	11.3	11.4	10.7	10.7	10.4	9.6	9.3	9.1	8.9	8.4	8.4
4 children.....	5.7	5.6	5.6	5.5	5.3	4.9	4.4	4.3	4.1	3.9	4.0	3.9	3.7	3.7
5 children.....	2.4	2.5	2.7	2.6	2.4	2.2	2.1	1.9	1.9	1.8	1.7	1.7	1.7	7.5
6 children or more.....	2.6	2.5	2.4	2.3	2.1	2.1	1.8	1.6	1.8	1.8	1.6	1.6	1.9	1.9
Region and Color														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White.....	90.2	90.7	90.8	90.5	90.7	90.7	90.9	91.1	89.3	91.1	91.6	91.8	91.2	91.2
Nonwhite.....	9.8	9.3	9.2	9.5	9.3	9.3	9.1	8.9	10.7	8.9	8.4	8.2	8.8	8.8
Northeast.....	25.3	26.4	26.1	26.2	26.1	25.2	26.0	26.3	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
North Central.....	27.8	27.6	28.6	28.8	29.1	30.4	29.3	29.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
South.....	29.7	30.3	29.9	30.4	30.8	30.5	29.7	29.8	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
White.....	24.9	25.6	25.0	25.3	25.4	25.3	24.5	24.8	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Nonwhite.....	4.8	4.7	4.9	5.1	5.4	5.2	5.2	5.0	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
West.....	17.2	15.7	15.4	14.6	14.1	13.9	15.0	14.0	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Employment Status and Occupation of Head														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Employed.....	78.1	78.9	79.3	78.5	81.9	81.7	81.1	81.5	82.7	82.9	83.5	81.5	89.8	(NA)
Unemployed.....	5.1	3.6	3.9	5.6	2.6	2.6	2.9	3.5	17.3	1.4	1.5	4.3	1.8	(NA)
In Armed Forces or not in labor force.....	16.8	17.5	16.8	15.9	15.6	15.7	16.1	15.0	(NA)	15.8	15.0	14.1	8.3	(NA)
Employed.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Professional, technical, & kindred workers..	12.0	11.3	10.4	10.4	9.7	9.3	8.7	8.4	8.2	7.9	7.2	16.5	16.7	(NA)
Self-employed.....	1.6	1.5	1.4	1.3	1.1	1.4	1.5	1.3	1.5	1.2	1.3	1.0	1.3	(NA)
Salaries.....	10.4	9.9	8.9	9.1	8.6	7.9	7.2	7.1	6.7	6.6	5.9	15.5	15.4	(NA)
Farmers and farm managers.....	6.8	6.9	7.5	7.8	8.0	8.7	9.4	10.1	9.5	10.0	10.7	12.1	12.4	(NA)
Managers, off'ls, & proprietors, exc. farm..	14.7	13.9	13.7	13.3	12.8	13.2	12.8	12.7	12.8	12.3	13.2	14.1	14.9	(NA)
Self-employed.....	6.7	6.6	6.6	6.3	6.4	7.2	6.8	6.7	6.8	6.4	7.5	8.5	9.1	(NA)
Salaried.....	8.0	7.3	7.1	7.0	7.1	6.0	6.0	5.9	6.0	5.9	5.7	5.7	5.7	(NA)
Clerical and kindred workers.....	7.8	7.8	7.3	7.5	7.1	7.0	6.9	6.7	6.4	7.2	6.4	7.8	7.0	(NA)
Sales workers.....	5.7	5.5	5.4	5.3	5.3	5.4	5.4	5.2	4.5	4.9	5.0	4.9	5.0	(NA)
Craftsmen, foremen, and kindred workers.....	19.8	20.6	20.8	21.4	20.9	19.5	20.4	19.9	21.1	22.1	20.8	19.7	19.1	(NA)
Operatives and kindred workers.....	18.9	20.0	19.9	20.0	21.2	21.8	21.6	21.3	21.8	20.6	21.3	20.8	19.7	(NA)
Private household workers.....	0.8	0.6	0.7	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.8	0.9	0.8	(NA)
Service workers, exc. private household.....	6.6	6.6	6.3	6.2	6.2	5.9	6.1	6.9	6.3	5.6	5.8	5.9	6.0	(NA)
Farm laborers and foremen.....	1.8	1.3	1.5	1.4	1.5	1.6	1.5	1.4	1.8	1.7	1.9	1.5	2.0	(NA)
Laborers, exc. farm and mine.....	5.0	5.4	6.5	5.9	6.4	6.8	6.5	6.5	7.0	6.9	6.9	5.8	6.3	(NA)

NA Not available.

! Includes semiprofessional workers.



Table II-4.—FAMILIES BY TOTAL MONEY INCOME IN CONSTANT (1959) DOLLARS, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

## COMPOSITION OF BROAD INCOME GROUPS

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Selected characteristics		1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
FAMILIES WITH INCOMES UNDER \$3,000															
Number.....thousands..		10,063	10,213	10,510	10,296	10,247	11,074	12,012	(NA)	12,034	12,470	13,159	14,086	13,391	12,628
Age of Head															
Total.....		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....		8.0	7.9	8.1	6.5	6.4	7.1	7.1	6.7	7.4	6.1	6.9	7.7	7.1	7.1
25 to 34 years.....		14.2	14.8	15.3	13.9	15.5	16.7	17.1	16.6	17.3	17.6	19.5	18.4	20.7	21.6
35 to 44 years.....		14.4	15.0	15.3	14.8	15.5	15.7	17.9	18.0	17.4	18.9	18.3	19.9	19.2	19.2
45 to 54 years.....		16.0	16.0	17.1	17.7	17.2	16.3	15.1	14.7	16.1	16.2	17.0	17.0	16.5	16.6
55 to 64 years.....		16.5	15.2	14.3	16.4	16.4	16.1	16.6	16.5	16.6	17.1	16.8	16.4	15.9	15.6
65 years and over.....		30.9	31.2	29.9	30.7	29.0	28.1	26.3	27.5	25.1	24.2	21.5	20.6	20.6	19.8
Size of Family															
Total.....		100.0	100.0	100.0	100.0	100.0	100.0	(NA)	(NA)	100.0	100.0	100.0	100.0	100.0	100.0
2 persons.....		51.4	49.8	47.9	49.2	48.5	46.8	(NA)	(NA)	46.6	47.0	43.8	42.5	41.5	41.5
3 persons.....		17.0	18.7	18.2	18.1	19.1	19.8	(NA)	(NA)	20.2	21.7	22.4	23.4	23.4	24.0
4 persons.....		12.3	11.9	12.4	11.7	12.7	13.0	(NA)	(NA)	13.7	13.8	14.7	14.4	16.1	15.8
5 persons.....		7.7	8.2	8.1	8.3	7.7	9.2	(NA)	(NA)	8.9	7.3	8.8	8.7	8.4	7.8
6 persons.....		4.2	4.7	5.2	5.4	4.8	4.6	(NA)	(NA)	4.9	4.7	4.8	5.2	4.7	4.8
7 persons or more.....		7.5	6.7	8.2	7.4	7.1	6.6	(NA)	(NA)	5.7	5.6	5.5	5.8	6.0	6.1
Number of Earners															
Total.....		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No earners.....		26.2	26.7	24.7	22.5	22.0	20.2	21.6	20.8	18.8	17.2	17.0	13.7	13.8	15.1
1 earner.....		47.0	47.4	49.0	51.4	51.5	53.0	56.2	54.0	56.5	59.7	57.3	60.2	60.9	65.6
2 earners.....		21.6	20.7	20.8	20.6	21.5	21.9	19.3	21.0	20.7	19.8	21.4	21.8	21.4	16.5
3 earners or more.....		5.2	5.2	5.5	5.5	5.0	4.9	2.9	4.2	4.0	3.3	4.3	4.3	3.9	2.8
Type of Family															
Total.....		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male head.....		76.7	77.1	78.7	79.6	79.3	79.3	80.2	81.2	81.6	81.9	81.5	85.9	83.9	84.5
Married, wife present.....		73.3	73.6	74.5	76.0	75.8	75.6	76.9	77.8	77.8	78.1	78.2	82.0	80.6	80.9
Wife in paid labor force.....		13.5	12.5	13.3	13.0	12.7	11.8	11.1	11.1	14.9	11.7	13.1	12.5	(NA)	(NA)
Wife not in paid labor force.....		59.8	61.1	61.2	63.0	63.1	63.8	65.8	66.8	62.8	66.5	65.1	69.5	(NA)	(NA)
Other marital status.....		3.4	3.4	4.2	3.5	3.5	3.7	3.3	3.3	3.8	3.8	3.3	3.9	3.3	3.6
Female head.....		23.3	22.9	21.3	20.4	20.7	20.7	19.8	18.8	18.4	18.1	18.4	14.1	16.1	15.5

NA Not available.

INCOME DISTRIBUTION IN THE UNITED STATES

Table II-4.—FAMILIES BY TOTAL MONEY INCOME IN CONSTANT (1959) DOLLARS, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
<b>Families With Incomes Under \$3,000—Con.</b>														
Number of Related Children Under 18														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No children.....	52.0	50.4	48.6	49.9	49.8	48.3	48.6	50.8	49.2	48.6	46.6	47.3	46.3	45.9
1 child.....	15.9	17.6	17.7	18.1	17.8	18.5	18.0	19.0	19.3	21.1	21.0	21.4	21.5	22.8
2 children.....	12.3	12.2	12.7	11.8	12.7	13.8	14.2	12.1	13.1	14.4	14.8	14.0	15.0	15.3
3 children.....	8.5	8.4	8.4	8.1	8.2	8.9	8.5	8.2	9.2	6.9	8.3	8.0	8.2	7.2
4 children.....	4.2	5.0	5.2	5.2	5.1	4.6	4.9	4.8	4.0	4.0	4.4	4.4	4.1	8.8
5 children.....	2.9	2.5	3.3	3.3	3.4	2.7	3.1	2.7	2.4	2.1	2.4	2.3	2.2	
6 children or more.....	4.3	3.9	4.1	3.5	3.0	3.2	2.6	2.4	2.8	2.8	2.5	2.5	2.7	
<b>Region and Color</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White.....	79.2	78.8	79.4	79.2	79.3	80.7	82.3	81.9	78.2	81.5	83.3	83.9	82.7	82.3
Nonwhite.....	20.8	21.2	20.6	20.8	20.7	19.3	17.7	18.1	21.8	18.5	16.7	16.1	17.3	17.7
Northeast.....	17.1	18.1	17.5	17.5	17.3	17.6	18.2	17.4	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
North Central.....	26.2	25.3	25.4	25.4	24.1	26.4	25.9	24.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
South.....	45.6	45.6	45.6	46.2	47.8	44.6	42.9	46.1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
White.....	31.3	31.3	31.5	31.8	32.2	30.8	30.6	32.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Nonwhite.....	14.3	14.3	14.1	14.5	15.6	13.8	12.3	13.4	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
West.....	11.1	11.0	11.5	10.8	10.8	11.5	12.9	11.8	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
<b>Employment Status and Occupation of Head</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Employed.....	52.7	50.8	54.1	53.9	57.9	60.4	60.2	62.3	65.5	67.2	69.0	68.3	80.8	(NA)
Unemployed.....	6.8	5.8	6.4	7.3	4.3	4.7	4.6	5.0	34.5	2.7	2.5	7.3	2.9	(NA)
In Armed Forces or not in labor force.....	40.5	43.4	39.4	38.8	37.7	35.0	35.3	32.6	} 34.5	} 30.1	28.5	24.4	16.3	(NA)
Employed.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Professional, technical, & kindred workers..	3.1	2.8	2.3	3.0	2.6	2.3	2.2	2.1	2.4	2.7	2.3	13.2	12.8	(NA)
Self-employed.....	0.9	0.7	0.4	0.7	0.6	0.7	0.7	0.4	0.5	0.7	0.3	0.4	0.3	(NA)
Salaries.....	2.2	2.2	1.8	2.3	2.0	1.6	1.5	1.7	1.9	2.1	1.9	12.8	12.5	(NA)
Farmers and farm managers.....	24.7	26.2	26.0	28.5	29.5	30.2	29.8	32.4	23.9	26.1	23.5	28.0	25.4	(NA)
Managers, off'ls, & proprietors, exc. farm..	9.9	8.1	7.9	8.7	8.8	8.6	9.1	7.7	7.6	7.6	8.6	8.8	9.4	(NA)
Self-employed.....	8.7	6.2	6.2	7.0	7.1	7.3	8.0	6.2	6.4	6.1	7.1	7.5	7.7	(NA)
Salaries.....	1.2	1.9	1.7	1.7	1.7	1.3	1.1	1.5	1.1	1.5	1.6	1.3	1.7	(NA)
Clerical and kindred workers.....	4.2	3.1	3.0	3.5	3.2	3.5	3.6	2.7	3.2	4.6	3.5	2.8	3.5	(NA)
Sales workers.....	3.1	3.0	3.0	2.7	2.3	2.6	3.4	3.5	2.6	2.8	3.0	3.3	3.1	(NA)
Craftsmen, foremen, and kindred workers.....	9.3	9.0	8.8	10.0	9.0	7.1	9.7	8.5	12.0	12.2	12.7	12.3	12.4	(NA)
Operatives and kindred workers.....	15.0	17.4	17.0	15.5	16.4	17.3	16.5	15.6	17.9	16.7	18.7	18.2	16.5	(NA)
Private household workers.....	4.3	3.2	3.4	3.5	3.3	3.1	3.0	2.6	2.4	2.3	2.2	2.4	2.4	(NA)
Service workers, exc. private household.....	10.0	12.1	9.8	9.1	8.1	7.3	8.2	9.3	9.6	8.4	7.8	7.6	7.8	(NA)
Farm laborers and foremen.....	6.9	5.9	6.5	5.5	5.8	6.1	4.4	4.5	6.0	5.1	5.5	4.4	5.6	(NA)
Laborers, exc. farm and mine.....	9.5	9.3	12.2	9.8	11.1	12.0	10.2	11.2	12.5	11.5	12.2	9.0	11.0	(NA)

NA Not available.

† Includes semiprofessional workers.



Table II-4.—FAMILIES BY TOTAL MONEY INCOME IN CONSTANT (1959) DOLLARS, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
FAMILIES WITH INCOMES OF \$10,000 AND OVER														
Number.....thousands..	6,257	5,532	4,571	4,187	4,350	3,563	3,152	(NA)	2,374	2,165	2,281	1,915	2,002	2,264
Age of Head														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	0.7	0.6	0.8	0.6	1.0	0.6	0.5	0.4	0.5	0.9	0.3	0.5	0.6	(Z)
25 to 34 years.....	12.6	11.8	12.6	14.0	13.7	10.6	11.2	13.0	11.4	12.5	11.1	10.2	12.5	11.4
35 to 44 years.....	29.4	29.6	29.4	28.7	28.5	25.4	26.3	27.8	25.3	26.5	21.8	23.6	26.1	26.6
45 to 54 years.....	31.8	30.9	32.7	32.1	31.0	34.8	31.1	29.0	28.9	27.6	30.5	33.6	29.5	30.1
55 to 64 years.....	18.3	20.0	17.8	17.7	18.1	20.9	21.3	20.3	23.6	22.5	25.6	23.4	22.1	21.2
65 years and over.....	7.2	7.0	6.7	6.9	7.6	7.7	9.7	9.4	10.4	10.0	10.7	8.6	8.7	10.7
Size of Family														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	(NA)	(NA)	100.0	100.0	100.0	100.0	100.0	100.0
2 persons.....	23.4	22.4	21.9	22.3	23.4	23.2	(NA)	(NA)	22.2	24.4	23.3	18.9	19.8	17.4
3 persons.....	21.0	21.5	22.8	22.6	20.9	25.5	(NA)	(NA)	24.8	24.0	22.7	24.0	21.8	21.3
4 persons.....	24.2	24.4	25.4	25.1	24.7	23.5	(NA)	(NA)	23.9	25.1	26.0	22.0	25.7	21.9
5 persons.....	17.6	17.6	16.7	15.7	16.4	15.8	(NA)	(NA)	14.4	14.4	14.8	15.6	14.3	18.2
6 persons.....	8.3	8.4	7.1	7.8	7.5	6.7	(NA)	(NA)	8.8	6.3	7.1	9.7	9.5	9.1
7 persons or more.....	5.5	5.8	6.1	6.5	7.1	5.3	(NA)	(NA)	5.8	5.8	6.2	9.7	9.0	12.0
Number of Earners														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No earners.....	0.8	1.1	0.6	0.9	0.9	1.0	1.6	1.8	0.9	1.0	1.7	0.5	0.9	0.6
1 earner.....	32.3	33.8	33.6	32.5	33.8	35.3	37.2	32.8	37.1	41.5	46.8	42.0	39.9	44.9
2 earners.....	41.7	39.2	40.9	40.8	38.9	38.3	35.3	35.0	35.7	29.9	25.9	27.2	30.2	26.7
3 earners or more.....	25.2	25.8	24.9	25.8	26.3	25.4	25.9	30.4	26.3	27.6	25.6	30.3	29.0	27.8
Type of Family														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male head.....	97.0	96.8	96.5	96.6	96.4	95.6	95.4	96.0	95.8	96.3	95.8	94.3	94.4	95.3
Married, wife present.....	94.8	94.5	94.0	93.8	94.1	92.6	92.4	92.2	91.8	93.3	92.0	89.9	89.3	91.3
Wife in paid labor force.....	38.4	34.9	34.6	36.0	33.3	30.3	28.8	28.7	30.2	26.7	18.1	19.2	(NA)	(NA)
Wife not in paid labor force.....	56.3	59.6	59.4	57.9	60.8	62.2	63.6	63.5	61.6	66.7	73.9	70.7	(NA)	(NA)
Other marital status.....	2.2	2.3	2.6	2.8	2.3	3.1	3.1	3.7	4.0	2.8	3.8	4.4	5.3	4.0
Female head.....	3.0	3.2	3.5	3.4	3.6	4.4	4.6	4.0	4.2	3.7	4.2	5.7	5.6	4.7

NA Not available. Z Less than 0.1 percent.

Table II-4.—FAMILIES BY TOTAL MONEY INCOME IN CONSTANT (1959) DOLLARS, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
FAMILIES WITH INCOMES OF \$10,000 AND OVER--Con.														
Number of Related Children Under 18														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No children.....	41.7	41.7	41.7	42.5	43.2	46.0	47.1	44.5	48.8	51.0	48.0	47.2	46.2	41.8
1 child.....	19.0	20.2	21.7	19.6	18.0	19.7	20.1	21.4	20.3	19.8	22.4	23.5	22.1	26.1
2 children.....	19.1	18.1	18.7	20.0	20.0	18.9	19.6	20.5	18.5	17.7	17.8	17.1	20.1	17.5
3 children.....	12.6	12.7	11.0	11.1	12.0	9.6	8.8	8.3	8.6	7.1	7.6	8.3	6.3	9.1
4 children.....	4.8	4.5	4.2	4.3	4.2	3.4	2.6	3.5	2.7	2.7	2.7	2.0	2.9	5.4
5 children.....	1.5	1.9	1.6	1.6	1.5	1.3	0.9	0.5	0.6	1.1	0.8	1.5	1.1	
6 children or more.....	1.3	0.8	1.1	1.1	1.1	1.0	0.9	1.2	0.5	0.7	0.6	0.6	1.4	
Region and Color														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White.....	96.6	98.1	97.9	98.3	98.4	98.7	98.4	98.2	98.2	99.1	98.6	99.1	98.3	98.2
Nonwhite.....	3.4	1.9	2.1	1.7	1.6	1.3	1.6	1.8	1.8	0.9	1.4	0.9	1.7	1.8
Northeast.....	30.2	32.6	32.0	32.4	31.4	26.3	29.0	28.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
North Central.....	26.1	26.6	28.3	30.8	33.0	34.8	32.2	35.1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
South.....	18.6	19.6	19.4	19.4	18.1	22.5	21.9	18.1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
White.....	18.0	19.3	18.8	19.0	17.8	22.4	21.6	17.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Nonwhite.....	0.6	0.3	0.6	0.3	0.3	0.2	0.4	0.3	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
West.....	25.1	21.2	20.3	17.6	17.5	16.4	16.8	18.2	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Employment Status and Occupation of Head														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Employed.....	91.4	91.9	93.5	91.7	93.1	92.0	92.5	91.4	91.8	93.0	93.2	91.3	95.6	(NA)
Unemployed.....	1.8	1.1	0.9	2.6	0.7	0.9	1.0	1.1	8.2	{	0.3	1.1	0.6	(NA)
In Armed Forces or not in labor force.....	6.8	7.0	5.6	5.7	6.2	7.1	6.5	7.5						6.6
Employed.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Professional, technical, & kindred workers..	25.2	25.3	24.7	25.0	21.6	20.3	20.7	19.8	20.8	17.9	19.2	16.6	15.5	(NA)
Self-employed.....	5.2	5.9	6.5	6.7	5.1	7.2	7.6	5.9	8.7	8.2	9.1	7.7	7.4	(NA)
Salaries.....	19.9	19.4	18.2	18.4	16.5	13.2	13.1	13.9	12.0	9.6	10.0	18.9	18.1	(NA)
Farmers and farm managers.....	2.0	2.3	2.7	1.4	2.5	2.7	3.2	4.5	5.6	7.0	7.8	7.1	10.8	(NA)
Managers, off'ls, & proprietors, exc. farm..	30.6	30.8	29.4	29.7	28.9	30.9	32.9	28.9	31.3	35.2	36.9	40.1	36.5	(NA)
Self-employed.....	10.0	11.6	12.5	10.7	12.6	16.9	15.0	13.0	14.9	17.8	20.6	23.5	21.3	(NA)
Salaried.....	20.5	19.3	16.8	19.0	16.3	14.1	17.9	15.9	16.3	17.4	16.3	16.6	15.2	(NA)
Clerical and kindred workers.....	5.5	5.6	5.4	5.3	5.2	5.2	4.3	6.5	5.1	4.7	4.8	5.7	4.7	(NA)
Sales workers.....	7.2	7.3	7.9	6.5	7.5	10.0	7.6	6.1	6.1	7.1	7.4	5.3	6.0	(NA)
Craftsmen, foremen, and kindred workers....	16.1	16.0	17.2	18.5	18.3	16.2	16.7	17.8	15.1	15.9	13.3	13.0	11.6	(NA)
Operatives and kindred workers.....	8.7	8.2	9.0	9.5	11.7	10.0	10.4	11.3	10.8	7.5	7.0	8.5	10.3	(NA)
Private household workers.....	(Z)	0.1	(Z)	(Z)	(Z)	(Z)	0.1	0.2	0.1	(Z)	0.2	0.2	(Z)	(NA)
Service workers, exc. private household.....	3.1	2.6	1.9	1.9	2.4	2.7	1.8	2.8	2.7	3.1	2.0	2.0	2.9	(NA)
Farm laborers and foremen.....	0.3	0.1	0.1	0.1	(Z)	0.2	0.1	0.1	0.7	0.6	(Z)	(Z)	0.2	(NA)
Laborers, exc. farm and mine.....	1.2	1.7	1.7	2.1	1.8	1.7	2.1	2.2	1.7	1.0	1.5	1.4	1.4	(NA)

NA Not available.

Z Less than 0.1 percent.

<sup>1</sup> Includes semiprofessional workers.

Source: Herman P. Miller, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.



not the full-time job it was once thought to be, especially when the children are of school age. Other factors underlying the general emergence of women as paid workers are the changing needs of the economy and the relatively high increase in the educational attainment of women, which enabled many to qualify for employment.

The predominant trend in the occupational distribution of the American labor force has been away from the arduous jobs involving manual labor and toward jobs where physical strength is of minor importance. The growing complexity of the American economy created many jobs that could be handled by women as well as men. The increase in the size of firms and technological changes in methods of production and recordkeeping strengthened the need for management services and other office functions in order to administer and coordinate advertising, research, sales personnel, and other phases of economic activity which require the services of clerical workers such as bookkeepers, office machine operators, secretaries, etc. Finally the high levels of employment and income and the increase in leisure time strengthened the need for sales workers. All of these factors together created jobs that could be filled by women as well as men.

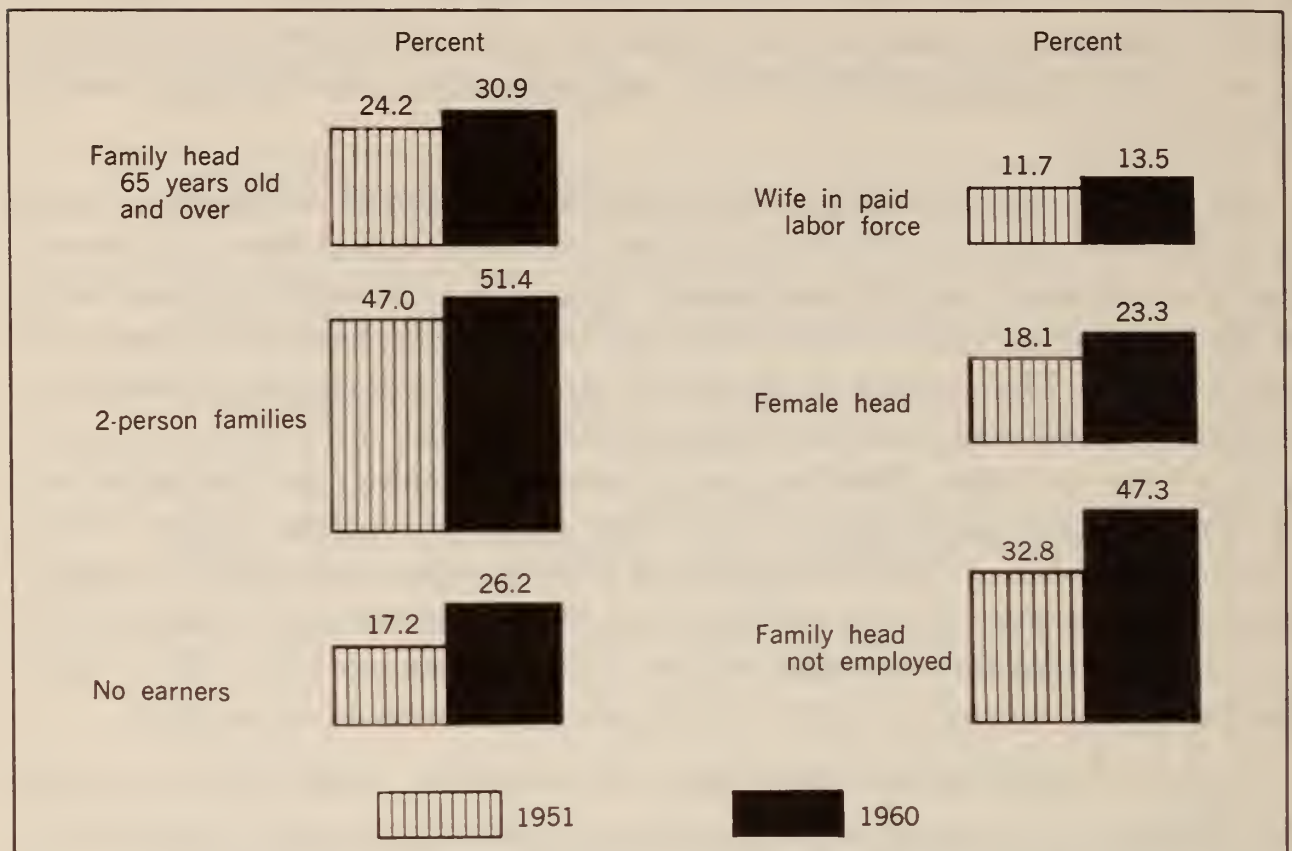
*Changes in the characteristics of low-income families.* As might be expected, the changes in the composition of low-income families were quite different from those described above for families at all income levels. In general there was a tendency toward the greater inclusion of the less productive and the disadvantaged groups in the lowest income class. As previously explained, this change is partly related to the use of constant dollars as the basis for classification.

An examination of the figures in table II-4 for families with incomes under \$3,000 shows that in the early postwar period the aged did not represent a significantly larger proportion of the low-income group than several other age groups. In 1947, for example, about 20 percent of the low-income families were found in each of the following age groups: 25 to 34, 35 to 44, and 65 years and over. This picture started to change in 1951, when families headed by a person 65 years old or over increased to 24 percent of the total in this income class. The proportion of low-income families in this age group increased regularly during the fifties. It reached a high point of 31 percent in 1957 and remained at that level in 1960 (see figure II-5).

The changes by size of family were also significant, but not as striking as the changes noted for age of the family head. In 1947 about two-fifths of the low-income group were 2-person families, probably elderly couples for the most part. This proportion increased regularly during the next 13 years and in 1960 about one-half of the low-income group were 2-person families. The observed changes in the age of family head and size of family for the low-income group point to a greater inclusion of elderly couples in the bottom income groups.

The figures by type of family show an increase, in the bottom-income groups, in the proportion of "broken" families (i.e., families headed by a woman with no husband present in the household). These families are generally dependent

Figure II-5.—SELECTED CHARACTERISTICS OF FAMILIES WITH INCOMES UNDER \$3,000: 1960 AND 1951



Source: Herman P. Miller, *Trends in the Income of Families and Persons in the United States, 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.

on the earnings of a relatively unskilled breadwinner or, as is often the case, they live on fixed incomes received from alimony, pensions, or public assistance. It should come as no surprise, therefore, that these families have increased in relative importance among the low-income groups. In 1947 only 16 percent of the families with incomes under \$3,000 had a female head as compared with 23 percent in 1960.

Despite the general increase in the number of married women in the labor force, there was no change in this respect among low-income families during the period under consideration. About the same proportion (13 percent) of the low-income group were families with working wives in 1947 and in 1960.

Many low-income families have the dual handicap of a chief breadwinner whose earnings potential is relatively low and a wife whose earnings potential is also low. Often the wife is too old to work, lacks work experience or training, or has household responsibilities that prevent her from working. In the case of elderly couples, who form a major part of the low-income group, the reason is almost self-evident. Both members of the family are either in retirement or semiretirement and tend to live on fixed incomes. There is also a strong tendency, however, for men with little schooling (another major segment of the low-income group) to marry women who also have little schooling. Here again neither one of the couple can obtain employment that will provide an adequate level of living.

The demographic changes in the composition of the lowest income group were accompanied, as might be expected, by marked changes in employment

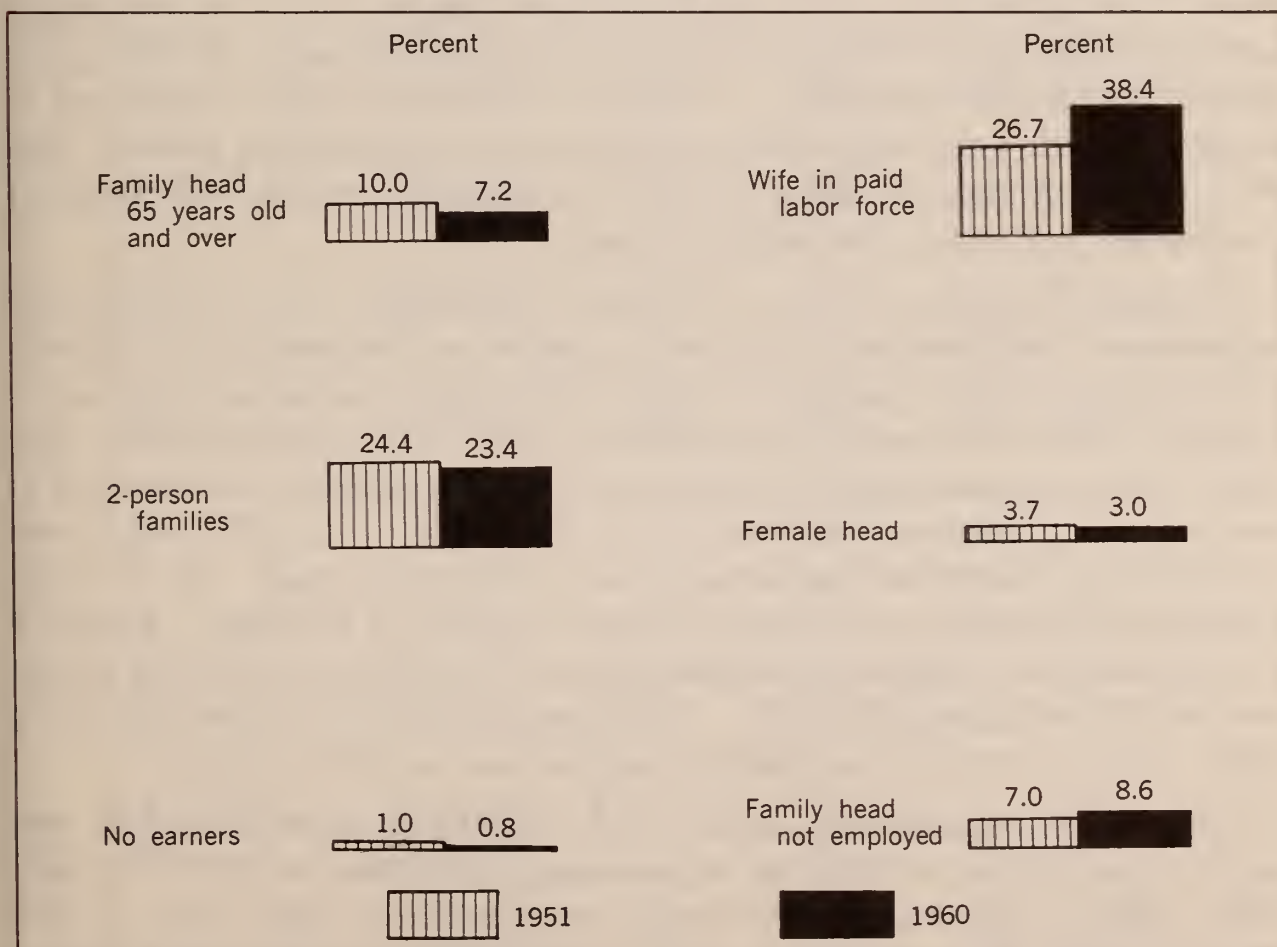


rates. The increase in the proportion of families in this group living on fixed incomes and transfer payments is reflected in a sharp rise in the relative number headed by a person who was not in the labor force. In 1948, only 16 percent of the families of the bottom-income group were headed by someone who was not working or looking for work, compared with 41 percent in 1960.

The occupational distribution of the heads of low-income families has not changed much. Despite the decline in farming for the population as a whole, farmers constituted about one-fourth of the lowest income group in 1948 and in 1960. The proportion of the low-income farmers today who are older persons and who are not engaged in full-time work is larger than in 1948.

*Changes in the characteristics of high-income families.* The demographic characteristics of families with incomes over \$10,000 were much more stable than were those of the lower income groups. There was no significant change during the period 1947 to 1960 in the distribution of high-income families by type or size of family or by color. However, the age distribution of these families has changed appreciably. In 1947, about one-third of the families of the high-income group were headed by persons over 55 years of age compared with only one-fourth in 1960. These figures are influenced to a large extent by the fact that incomes above \$10,000 are much more common today than they were in 1947 (see figure II-6).

Figure II-6.—SELECTED CHARACTERISTICS OF FAMILIES WITH INCOMES OF \$10,000 AND OVER: 1960 AND 1951



Source: Herman P. Miller, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.

The greatest changes in the characteristics of the high-income groups were in the increased labor force participation of married women and in the occupational distribution of family heads. The proportion of high-income families with wives in paid employment doubled during the past decade, rising from 19 percent in 1949 to 38 percent in 1960. This striking rise in the tendency for married women to work, particularly those whose husbands are in average and slightly higher than average positions, has had a major impact on many aspects of American life. It is in large measure responsible for the growth of a mass market for what were once regarded as luxury goods and status symbols—dishwashers, air conditioners, suburban homes, two-car families, college training at exclusive schools, etc.

Although few significant changes occurred in the occupational distribution of low-income family heads, there have been major changes in the high-income group. The most important among these was a decline in the relative importance of self-employed workers and an increase in salaried professional and managerial workers. In 1948, about two-fifths of the families in the high-income group were headed by businessmen, farmers, or self-employed professionals (largely doctors, dentists, and lawyers). By 1960, the proportion in these occupations dropped to only one-fifth. In contrast, during the same period, the proportion of high-income families headed by salaried professional and managerial workers increased from 23 percent to 42 percent. These figures largely reflect the growing importance of scientists, engineers, teachers, and other salaried professional workers in the American economy. Immediately after World War II the high-income group had more families headed by semiskilled factory workers and craftsmen than by salaried professionals. By 1960, this picture had changed completely. Salaried professionals ranked only second to salaried officials and corporation executives in the top income families, and each of these occupations was numerically more important than self-employed businessmen, who once dominated the group.

*Changes in the characteristics of unrelated individuals.* The relatively full employment conditions during the postwar period and increased Social Security payments have made it possible for many older people, particularly widows, to maintain their own households rather than move in with other relatives. As a result, there has been a significant increase in the proportions of the aged and of women among unrelated individuals (see table II-5). In 1949, only about one-fourth of all unrelated individuals were over 65 years of age. By 1954, this proportion increased to one-third and it has remained at that level. Similarly, the proportion of unrelated individuals who were women increased from 54 percent in 1949 to 62 percent in 1960. The characteristics of unrelated individuals did not change much in other respects, such as color and work status.

Unrelated individuals with incomes under \$1,000 (in constant dollars) were much more likely to be older, on the average, in 1960 than in 1949. In addition, a larger proportion in 1960 were women and nonworkers than in 1949. The increase in the proportion of women in the bottom income group is perhaps the most significant change. In 1949, 63 percent of the unrelated individuals



Table II-5.—UNRELATED INDIVIDUALS BY TOTAL MONEY INCOME IN CONSTANT (1959) DOLLARS, BY SELECTED CHARACTERISTICS: 1947 TO 1960

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
ALL UNRELATED INDIVIDUALS														
Number..... thousands..	10,900	10,702	10,751	10,313	9,658	9,766	9,623	(NA)	9,774	9,015	9,194	8,835	8,136	8,056
Age														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	10.4	9.8	7.9	9.3	9.3	7.5	7.9	11.2	8.7	9.1	11.9	13.2	11.5	10.1
25 to 34 years.....	11.5	9.0	10.4	11.8	10.3	10.5	10.4	11.0	10.2	10.7	11.0	12.0	12.8	13.0
35 to 44 years.....	10.1	9.1	10.5	10.9	10.4	9.9	12.4	12.5	12.2	12.3	11.6	10.7	12.9	12.5
45 to 54 years.....	15.4	16.0	15.9	14.7	15.0	16.4	15.4	16.6	16.7	16.5	17.2	16.4	15.0	16.8
55 to 64 years.....	19.1	21.4	21.0	20.2	19.8	21.1	20.6	19.5	21.4	20.1	20.7	19.9	19.6	17.2
65 years and over.....	33.6	34.8	34.3	33.0	35.1	34.5	33.3	29.1	30.8	31.3	27.6	27.8	28.3	30.4
Earner Status														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nonearner.....	35.7	38.0	36.0	32.8	35.9	35.7	35.3	32.2	33.8	35.0	32.5	31.5	35.7	34.5
Earner.....	64.3	62.0	64.0	67.2	64.1	64.3	64.7	67.8	66.2	65.0	67.5	68.5	64.3	65.5
Sex														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male.....	38.4	38.3	39.4	39.1	39.1	41.1	40.9	42.5	43.4	41.3	42.5	46.1	47.3	45.1
Female.....	61.6	61.7	60.6	60.9	60.9	58.9	59.1	57.5	56.6	58.7	57.5	53.9	52.7	54.9
Region and Color														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White.....	86.5	85.9	86.2	85.9	86.4	85.5	84.0	82.1	85.3	85.5	86.7	85.2	87.7	87.0
Nonwhite.....	13.5	14.1	13.8	14.1	13.6	14.5	16.0	17.9	14.7	14.5	13.3	14.8	12.3	13.0
Region and Color														
Northeast.....	24.0	26.6	25.8	25.3	25.9	28.1	27.6	28.3	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
North Central.....	28.9	27.3	29.4	29.9	29.4	28.5	27.9	27.8	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
South.....	26.8	27.0	24.7	25.2	26.6	24.0	24.2	24.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
White.....	21.4	20.0	18.0	18.5	19.8	16.9	16.7	17.0	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Nonwhite.....	5.3	6.9	6.7	6.7	6.8	7.1	7.5	7.8	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
West.....	20.3	19.1	20.1	19.6	18.1	19.4	20.2	19.0	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

INCOME DISTRIBUTION IN THE UNITED STATES

Table II-5.—UNRELATED INDIVIDUALS BY TOTAL MONEY INCOME IN CONSTANT (1959) DOLLARS, BY SELECTED CHARACTERISTICS:  
1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
UNRELATED INDIVIDUALS WITH INCOMES UNDER \$1,000														
Number.....thousands..	3,698	3,832	3,892	3,669	3,549	3,720	3,950	(NA)	3,542	3,757	3,795	3,588	3,411	3,354
Age														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	12.0	11.1	9.0	10.7	11.1	7.8	8.6	14.2	9.7	9.0	14.3	18.5	14.2	10.4
25 to 34 years.....	6.3	4.5	4.8	6.0	5.2	5.4	5.3	5.6	4.5	4.5	5.0	6.3	6.8	8.1
35 to 44 years.....	6.4	6.8	6.9	6.7	6.1	7.5	9.2	6.9	5.6	7.7	7.3	6.4	8.4	8.2
45 to 54 years.....	10.1	11.6	11.4	9.9	9.9	11.1	9.4	10.6	12.1	9.9	11.6	9.2	10.7	13.6
55 to 64 years.....	17.3	17.7	17.8	17.9	18.4	18.6	19.9	17.1	19.3	18.0	19.7	17.5	19.9	16.7
65 years and over.....	47.9	48.4	50.1	48.8	49.4	49.7	47.6	45.6	49.0	50.8	42.0	42.2	39.9	43.0
Earners Status														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nonearner.....	64.4	67.6	65.9	62.2	63.8	63.3	61.2	61.5	65.7	64.0	58.0	58.6	62.1	51.9
Earner.....	35.6	32.4	34.1	37.8	36.2	36.7	38.8	38.5	34.3	36.0	42.0	41.4	37.9	48.1
Sex														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male.....	27.4	29.4	30.4	30.5	30.5	31.8	32.4	29.8	29.6	31.9	32.2	36.6	39.7	35.7
Female.....	72.6	70.6	69.6	69.5	69.5	68.2	67.6	70.2	70.4	68.1	67.8	63.4	60.3	64.3
Region and Color														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White.....	80.6	81.0	82.2	81.3	83.5	81.4	79.7	80.7	82.3	83.4	83.9	82.0	84.9	84.2
Nonwhite.....	19.4	19.0	17.8	18.7	16.5	18.6	20.3	19.3	17.7	16.6	16.1	18.0	15.1	15.8
Northeast.....	20.5	22.7	23.0	22.5	26.1	27.6	22.3	22.2	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
North Central.....	28.3	28.9	29.6	31.1	29.6	30.2	28.0	31.2	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
South.....	37.1	35.8	32.1	33.3	31.2	30.3	33.6	30.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
White.....	26.3	22.4	20.9	21.3	20.5	18.8	20.6	19.4	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Nonwhite.....	10.7	13.4	11.3	12.1	10.7	11.4	13.0	11.5	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
West.....	14.1	12.6	15.4	13.2	13.1	11.9	16.1	15.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.



Table II-5.—UNRELATED INDIVIDUALS BY TOTAL MONEY INCOME IN CONSTANT (1959) DOLLARS, BY SELECTED CHARACTERISTICS:  
1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
UNRELATED INDIVIDUALS WITH INCOMES OF \$5,000 OR MORE														
Number.....thousands..	1,445	1,240	1,207	1,125	918	750	684	(NA)	680	450	476	433	344	447
Age														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	4.0	2.9	2.2	2.1	3.6	2.4	6.2	2.1	0.8	1.3	0.5	1.6	2.1	2.5
25 to 34 years.....	21.0	17.2	20.8	22.9	23.3	16.8	19.3	17.9	15.7	24.3	16.0	15.5	18.7	13.6
35 to 44 years.....	21.6	19.5	20.8	19.5	20.2	15.2	14.5	21.9	22.2	18.6	20.0	11.6	19.8	22.0
45 to 54 years.....	26.3	21.8	22.2	22.6	23.1	24.2	20.2	22.8	26.2	20.8	26.3	25.6	20.3	22.9
55 to 64 years.....	17.1	26.0	23.9	22.5	20.7	26.2	23.5	23.0	21.4	23.5	21.1	19.4	19.8	20.3
65 years and over.....	10.0	12.6	10.1	10.4	9.2	15.2	16.3	12.3	13.6	11.5	16.2	26.4	19.3	18.6
Earners														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nonearner.....	3.8	5.2	4.1	5.2	3.1	8.8	12.1	8.7	5.0	7.2	12.2	8.6	10.2	14.4
Earners.....	96.2	94.8	95.9	94.8	96.9	91.2	87.9	91.3	95.0	92.8	87.8	91.4	89.8	85.6
Sex														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male.....	63.1	60.7	63.6	59.0	64.6	67.3	61.9	74.5	75.3	76.8	65.4	78.1	69.5	72.0
Female.....	36.9	39.3	36.4	41.0	35.4	32.7	38.1	25.5	24.7	23.2	34.6	21.9	30.5	28.0
Region and Color														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White.....	94.1	95.1	95.9	97.2	94.4	96.2	98.2	97.0	92.9	96.4	94.6	100.0	97.8	96.6
Nonwhite.....	5.9	4.9	4.1	2.8	5.6	3.8	1.8	3.0	7.1	3.6	5.4	(Z)	2.2	3.4
Northeast.....	24.1	25.5	23.0	24.5	21.4	25.6	22.7	34.6	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
North Central.....	29.3	28.1	32.7	33.8	30.1	29.0	35.5	23.3	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
South.....	17.4	15.7	16.7	20.0	25.4	20.4	18.8	15.4	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
White.....	16.4	15.2	15.4	19.3	22.9	19.2	18.8	14.1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Nonwhite.....	0.9	0.5	1.3	0.7	2.5	1.2	(Z)	1.3	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
West.....	29.1	30.7	27.8	21.9	23.1	24.8	22.7	26.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available. Z Less than 0.1 percent.

Source: Herman P. Miller, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.

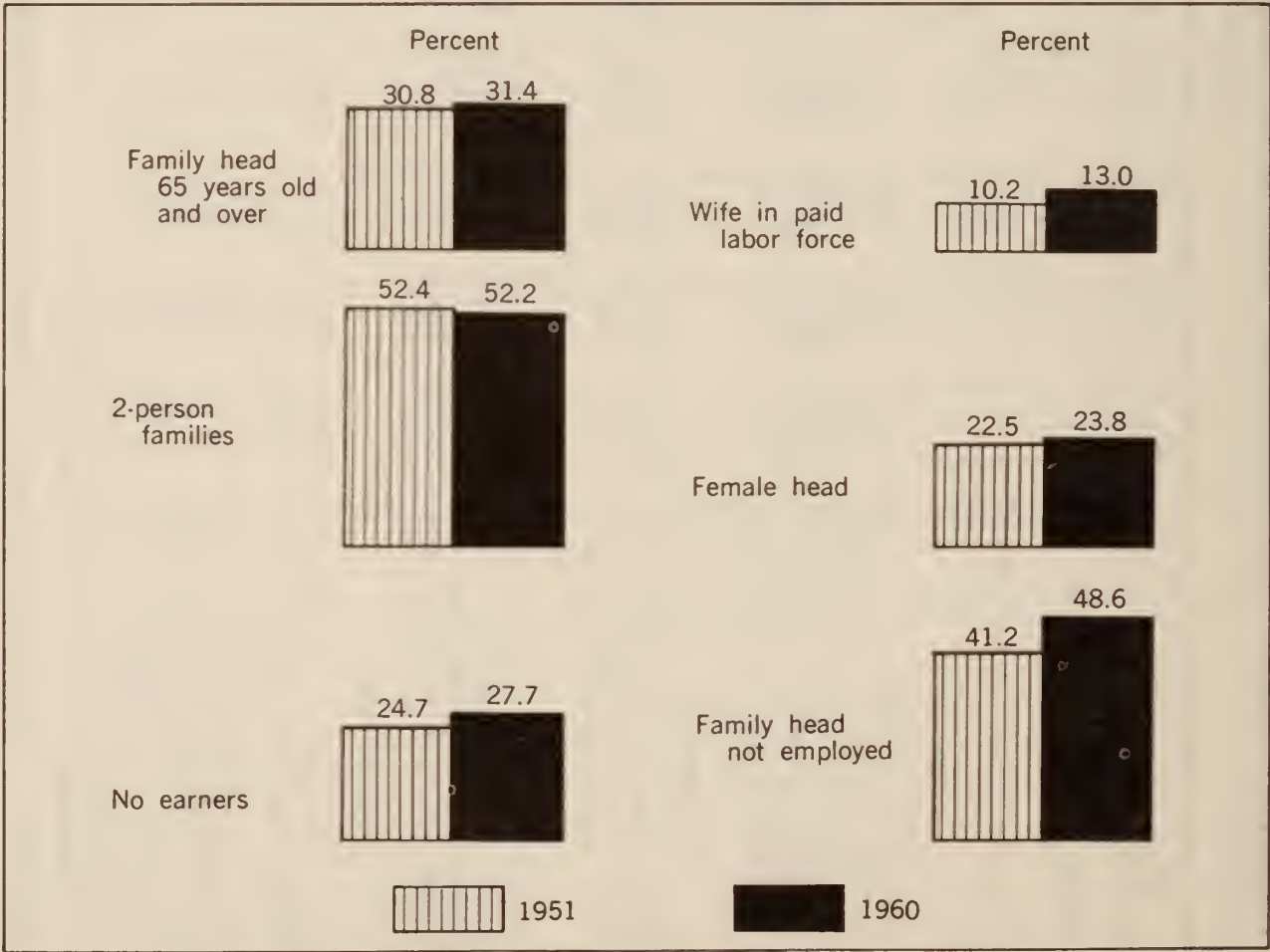
in the lowest income group were women as compared with 73 percent in 1960. The increase in the representation of women among unrelated individuals was not restricted to the lowest income group, but occurred at all income levels throughout the decade.

Since a relatively small proportion of unrelated individuals have incomes over \$5,000 (in constant dollars), the sample is small and the numbers are unstable. In general, however, it appears that in 1960, unrelated individuals with incomes over \$5,000 included a larger proportion of younger people than at the end of the second world war. It also contained a larger proportion of women and employed persons. Immediately after the war about one-fifth of the unrelated individuals with incomes over \$5,000 (in constant dollars) were 65 years old or over as compared with only one-tenth in 1960. During this period the proportion of women in this group increased from only about one-fifth in the late forties to nearly two-fifths in 1960.

Composition of fifths of families ranked by income: 1947 to 1960

*Changes in the characteristics of the lowest fifth.* In most respects there was considerably more stability in the composition of families classified by fifths than by constant dollars. This tendency can be seen most clearly in the demographic data for the lowest fifth of families ranked from lowest to highest by income in table II-6 and figure II-7. The only significant changes that took place within

Figure II-7.—SELECTED CHARACTERISTICS OF THE LOWEST FIFTH: 1960 AND 1951



Source: Herman P. Miller, *Trends in the Income of Families and Persons in the United States, 1947 to 1960*, U. S. Bureau of the Census, Technical Paper No. 8, 1963.



Table II-6.—FIFTHS OF FAMILIES RANKED BY SIZE OF MONEY INCOME, BY SELECTED CHARACTERISTICS: 1947 TO 1960

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
<b>LOWEST FIFTH</b>														
<b>Age of Head</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	7.9	7.5	7.8	6.2	6.0	6.4	6.4	6.3	7.1	5.1	6.1	6.5	5.8	6.5
24 to 34 years.....	13.7	14.1	14.8	12.9	14.8	15.4	15.8	14.4	13.8	14.3	16.2	13.6	16.7	17.4
35 to 44 years.....	14.2	14.7	14.5	14.6	14.6	14.8	17.1	16.2	15.7	16.6	16.4	18.1	17.2	17.5
45 to 54 years.....	16.0	16.1	16.9	17.5	17.3	16.1	13.9	14.1	16.1	14.8	17.0	17.6	16.5	15.9
55 to 64 years.....	16.7	15.4	14.6	16.4	16.4	16.4	16.7	17.0	17.2	18.5	17.1	19.2	16.7	16.6
65 years and over.....	31.4	32.2	31.3	32.3	30.8	30.9	30.0	32.0	30.1	30.8	27.2	25.0	27.1	26.2
<b>Size of Family</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	(NA)	(NA)	100.0	100.0	100.0	100.0	100.0	100.0
2 persons.....	52.2	51.1	49.4	50.5	50.0	48.8	(NA)	(NA)	51.0	52.4	48.4	47.7	46.5	47.3
3 persons.....	16.7	18.2	17.9	17.7	18.5	19.3	(NA)	(NA)	19.1	20.7	20.6	21.8	21.4	21.6
4 persons.....	12.1	11.7	11.7	11.2	12.2	12.3	(NA)	(NA)	12.2	11.1	12.7	12.3	14.1	13.7
5 persons.....	7.4	7.9	7.6	8.2	7.6	8.5	(NA)	(NA)	7.5	6.2	8.1	7.5	7.4	6.8
6 persons.....	4.2	4.3	5.2	5.2	4.5	4.4	(NA)	(NA)	4.7	4.1	4.5	4.4	4.3	4.2
7 persons or more.....	7.3	6.8	8.2	7.2	7.2	6.7	(NA)	(NA)	5.5	5.5	5.7	6.2	6.3	6.4
<b>Number of Earners</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No earners.....	27.7	28.5	27.7	25.2	24.6	24.1	27.3	25.9	25.3	24.7	24.0	20.8	20.6	22.1
1 earner.....	46.4	46.9	47.7	50.2	50.2	51.1	53.4	51.2	52.3	54.2	52.5	56.0	57.0	60.8
2 earners.....	20.7	19.4	19.0	19.3	20.4	20.1	16.7	19.0	18.7	18.2	19.5	19.3	19.2	14.8
3 earners or more.....	5.2	5.2	5.6	5.3	4.9	4.8	2.6	3.8	3.7	2.9	3.9	3.8	3.3	2.3
<b>Type of Family</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male head.....	76.2	76.3	77.1	78.1	78.1	77.3	77.4	79.1	78.0	77.5	77.5	82.7	80.5	81.8
Married, wife present.....	72.7	72.7	72.6	74.4	74.6	73.5	73.9	75.4	74.1	73.3	73.9	78.0	77.1	77.5
Wife in paid labor force.....	13.0	11.8	12.3	11.9	11.6	10.4	9.5	9.6	14.0	10.2	11.4	10.3	(NA)	(NA)
Wife not in paid labor force.....	59.7	60.9	60.2	62.5	63.0	63.1	64.4	65.8	60.1	63.1	62.6	67.7	(NA)	(NA)
Other marital status.....	3.5	3.5	4.5	3.8	3.5	3.8	3.5	3.7	3.9	4.2	3.6	4.7	3.5	4.3
Female head.....	23.8	23.7	22.9	21.9	21.9	22.7	22.6	20.9	22.0	22.5	22.5	17.3	19.5	18.2

NA Not available.

## INCOME DISTRIBUTION IN THE UNITED STATES

Table II-6.—FIFTHS OF FAMILIES RANKED BY SIZE OF MONEY INCOME, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
LOWEST FIFTH--Con.														
Number of Related Children Under 18														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No children.....	52.5	51.3	49.5	50.5	50.7	49.4	50.5	53.1	52.7	53.4	49.9	50.8	50.9	50.7
1 child.....	15.8	17.0	17.6	18.4	17.6	18.3	17.0	18.5	18.0	19.6	19.5	19.9	19.1	20.4
2 children.....	12.0	12.1	12.1	11.3	12.1	13.4	13.7	11.2	12.2	12.5	13.6	12.3	13.0	14.1
3 children.....	8.5	8.2	8.0	8.0	8.1	8.3	8.4	7.7	7.7	6.1	7.7	7.5	7.9	5.8
4 children.....	4.1	4.9	5.1	5.0	5.0	4.4	4.9	4.6	4.1	3.6	4.1	4.3	4.0	9.0
5 children.....	2.9	2.5	3.5	3.4	3.5	2.7	3.1	2.6	2.3	2.0	2.4	2.2	2.2	
6 children or more.....	4.3	3.9	4.1	3.4	3.0	3.4	2.5	2.5	2.9	2.8	2.9	2.9	3.0	
Region and Color														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White.....	78.6	78.0	78.1	78.1	78.5	79.5	80.3	81.2	77.2	78.6	81.2	80.7	79.3	78.5
Nonwhite.....	21.4	22.0	21.9	21.9	21.5	20.5	19.7	18.8	22.8	21.4	18.8	19.3	20.7	21.5
Northeast.....	16.7	17.7	16.9	16.8	16.4	16.4	16.6	15.4	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
North Central.....	26.2	25.2	25.2	25.0	23.8	26.1	25.1	24.6	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
South.....	46.2	46.4	46.6	47.9	49.0	46.1	45.4	48.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
White.....	31.3	31.2	31.2	32.4	32.5	31.1	31.4	34.1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Nonwhite.....	14.9	15.3	15.4	15.5	16.5	15.1	14.0	14.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
West.....	10.9	10.7	11.2	10.4	10.7	11.3	13.0	11.2	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Employment Status and Occupation of Head														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Employed.....	51.4	49.5	51.4	51.8	55.7	56.9	54.3	57.6	58.5	58.8	61.7	62.7	75.7	(NA)
Unemployed.....	6.8	5.9	6.3	6.9	4.2	4.4	4.6	4.8	{	3.2	2.9	6.8	2.8	(NA)
In Armed Forces or not in labor force.....	41.8	44.6	42.3	41.3	40.1	38.7	41.1	37.7		41.5	38.0	35.5	30.5	21.5
Employed.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Professional, technical, & kindred workers..	3.0	2.7	2.1	2.9	2.3	2.0	2.0	1.8	1.6	2.3	1.6	12.8	11.9	(NA)
Self-employed.....	1.0	0.7	0.5	0.8	0.6	0.7	0.8	0.3	0.2	0.8	0.4	0.6	0.3	(NA)
Salaries.....	2.1	2.1	1.7	2.1	1.7	1.2	1.1	1.5	1.4	1.5	1.3	12.1	11.6	(NA)
Farmers and farm managers.....	25.8	28.3	28.8	31.7	32.5	35.3	38.8	40.0	31.5	35.1	31.0	41.6	36.4	(NA)
Managers, off'ls, & proprietors, exc. farm..	10.0	7.9	7.7	8.5	8.7	8.0	8.6	7.2	8.0	6.8	9.4	8.6	8.8	(NA)
Self-employed.....	8.9	6.2	6.2	7.0	7.3	7.0	7.6	6.0	6.9	5.9	8.0	8.0	7.8	(NA)
Salaries.....	1.1	1.7	1.5	1.5	1.5	1.0	1.0	1.3	1.1	0.9	1.4	0.6	0.9	(NA)
Clerical and kindred workers.....	3.8	2.9	2.5	3.0	2.8	2.9	2.3	1.9	2.4	3.7	2.3	1.1	1.9	(NA)
Sales workers.....	3.2	2.7	3.1	2.8	2.2	2.5	2.9	2.7	2.2	1.9	2.1	2.4	2.5	(NA)
Craftsmen, foremen, and kindred workers.....	8.8	8.2	7.5	9.2	8.5	6.1	7.5	6.5	8.9	8.2	9.4	8.1	9.2	(NA)
Operatives and kindred workers.....	14.1	16.5	15.9	13.4	14.2	14.8	11.5	13.0	12.8	11.6	14.9	12.6	11.1	(NA)
Private household workers.....	4.5	3.6	3.8	4.2	3.8	3.8	4.1	3.3	3.6	3.6	3.4	3.9	3.7	(NA)
Service workers, exc. private household.....	9.7	11.9	9.8	8.2	7.8	6.5	7.1	8.6	7.7	8.8	7.5	6.3	6.9	(NA)
Farm laborers and foremen.....	7.3	6.3	7.1	6.1	6.2	6.6	5.0	5.3	7.7	6.8	7.1	5.2	7.6	(NA)
Laborers, exc. farm and mine.....	9.5	8.9	11.9	9.8	11.0	11.4	9.9	9.6	11.7	11.2	11.4	7.5	10.1	(NA)

NA Not available.

<sup>1</sup> Includes semiprofessional workers.



Table II-6.—FIFTHS OF FAMILIES RANKED BY SIZE OF MONEY INCOME, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
<b>HIGHEST FIFTH</b>														
<b>Age of Head</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	1.1	1.1	1.6	1.2	1.6	1.4	1.3	1.2	1.3	1.9	1.7	1.8	1.4	1.0
25 to 34 years.....	14.0	14.8	16.3	17.9	17.8	15.6	16.1	18.4	19.7	19.0	18.5	16.6	16.9	14.0
35 to 44 years.....	29.9	30.7	29.6	29.5	28.7	27.9	28.1	28.1	27.7	29.1	25.1	25.7	26.2	26.4
45 to 54 years.....	30.8	29.5	30.0	28.4	28.3	30.2	28.3	26.6	26.5	24.8	26.9	29.4	28.1	29.3
55 to 64 years.....	17.3	17.4	16.3	15.9	16.5	17.7	18.3	17.3	17.0	17.7	20.0	19.3	19.7	20.5
65 years and over.....	6.8	6.5	6.2	6.1	7.1	7.2	7.9	8.4	7.9	7.5	7.8	7.2	7.8	8.8
<b>Size of Family</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	(NA)	(NA)	100.0	100.0	100.0	100.0	100.0	100.0
2 persons.....	23.7	22.8	23.2	23.9	24.6	24.9	(NA)	(NA)	24.0	24.2	24.6	23.5	21.6	19.4
3 persons.....	21.5	21.7	22.5	22.9	21.8	25.2	(NA)	(NA)	27.2	25.4	24.4	24.7	24.6	23.1
4 persons.....	24.7	24.6	25.4	24.7	24.5	24.2	(NA)	(NA)	23.4	23.9	24.9	22.1	24.3	22.3
5 persons.....	16.8	17.1	16.0	14.6	15.5	14.5	(NA)	(NA)	14.1	14.5	14.4	14.2	14.3	16.7
6 persons.....	7.8	7.9	7.0	7.7	7.5	6.1	(NA)	(NA)	6.8	6.3	6.3	8.6	8.0	8.9
7 persons or more.....	5.4	5.8	5.9	6.2	6.2	5.1	(NA)	(NA)	4.6	5.6	5.4	6.8	7.2	9.5
<b>Number of Earners</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No earners.....	0.7	0.8	0.5	0.6	0.6	0.8	1.0	0.9	0.6	0.7	1.1	0.5	0.7	1.2
1 earner.....	32.1	33.0	33.8	31.5	32.5	32.6	35.1	31.8	33.1	35.8	39.0	33.8	32.7	38.2
2 earners.....	44.5	43.6	44.0	45.5	44.5	45.4	43.7	43.1	46.0	42.3	38.7	41.3	40.6	35.2
3 earners or more.....	22.8	22.6	21.7	22.3	22.4	21.2	20.2	24.2	20.3	21.3	21.2	24.5	26.0	25.4
<b>Type of Family</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male head.....	96.7	96.6	96.2	96.4	96.1	95.2	95.2	94.7	95.2	94.7	95.1	94.2	93.9	93.2
Married, wife present.....	94.6	94.1	93.8	94.0	93.8	92.2	92.4	91.4	91.7	91.5	92.3	90.4	89.5	89.4
Wife in paid labor force.....	39.2	36.9	36.0	38.2	36.3	36.0	33.8	33.2	35.0	30.9	27.6	27.2	(NA)	(NA)
Wife not in paid labor force.....	55.5	57.2	57.8	55.8	57.5	56.3	58.6	58.2	56.8	60.6	64.6	63.2	(NA)	(NA)
Other marital status.....	2.0	2.5	2.5	2.4	2.2	3.0	2.8	3.4	3.5	3.2	2.9	3.8	4.4	3.8
Female head.....	3.3	3.4	3.8	3.6	3.9	4.8	4.8	5.3	4.8	5.3	4.9	5.8	6.1	6.8

NA Not available.

Table II-6.—FIFTHS OF FAMILIES RANKED BY SIZE OF MONEY INCOME, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
HIGHEST FIFTH--Con.														
Number of Related Children Under 18														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No children.....	40.3	39.6	40.0	40.6	41.9	44.5	43.7	43.9	44.1	44.7	44.5	47.3	46.0	42.9
1 child.....	19.8	19.4	21.2	20.0	18.9	19.6	20.8	22.4	23.5	21.9	24.1	22.5	24.1	25.3
2 children.....	19.7	19.4	20.1	20.3	20.2	19.5	21.6	20.3	19.5	18.4	18.5	17.7	17.9	17.7
3 children.....	12.5	12.9	11.2	11.5	11.9	10.4	9.3	8.7	8.5	9.7	8.0	8.2	7.0	8.5
4 children.....	4.8	4.7	4.5	4.6	4.3	3.7	2.7	2.9	2.6	3.2	2.9	2.5	2.8	2.8
5 children.....	1.6	2.0	1.7	1.7	1.6	1.3	0.9	0.8	1.0	1.2	0.9	1.0	1.2	1.2
6 children or more.....	1.3	1.0	1.2	1.3	1.2	1.0	0.9	1.0	0.9	1.0	1.0	0.8	1.0	5.6
Region and Color														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White.....	96.5	97.5	97.5	97.4	97.9	98.0	97.6	97.2	97.4	98.2	98.0	98.1	97.6	97.1
Nonwhite.....	3.5	2.5	2.5	2.6	2.1	2.0	2.4	2.8	2.6	1.8	2.0	1.9	2.4	2.9
Northeast.....	29.8	32.0	30.8	31.6	31.2	26.9	29.9	29.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
North Central.....	27.2	27.4	28.6	30.7	32.4	34.9	31.9	34.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
South.....	18.5	19.8	20.7	19.7	19.3	21.5	21.6	18.5	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
White.....	17.9	19.4	20.0	19.2	18.8	21.5	20.9	17.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Nonwhite.....	0.6	0.4	0.6	0.6	0.5	0.4	0.7	0.6	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
West.....	24.5	20.9	20.0	17.9	17.0	16.3	16.7	16.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Employment Status and Occupation of Head														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Employed.....	91.2	91.8	92.8	90.8	92.8	91.5	91.6	90.9	92.1	90.4	92.3	91.3	94.7	(NA)
Unemployed.....	2.2	1.5	1.4	3.3	1.1	1.3	1.6	1.5	7.9	0.5	0.6	1.5	0.9	(NA)
In Armed Forces or not in labor force.....	6.7	6.7	5.8	5.9	6.2	7.2	6.8	7.6	(NA)	9.0	7.1	7.2	4.4	(NA)
Employed.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Professional, technical, & kindred workers.....	23.3	22.7	21.1	20.9	19.1	17.7	17.2	15.6	16.6	14.6	14.7	13.3	11.9	(NA)
Self-employed.....	4.2	4.2	4.5	4.3	3.3	3.9	4.3	3.2	4.4	3.4	4.3	3.1	3.7	(NA)
Salaried.....	19.1	18.5	16.7	16.6	15.7	13.7	12.9	12.4	12.2	11.2	10.4	10.2	18.2	(NA)
Farmers and farm managers.....	2.0	2.0	2.5	1.6	2.2	2.1	2.5	3.5	4.0	4.7	5.4	4.6	7.0	(NA)
Managers, off'ls, & proprietors, exc. farm.....	27.2	25.7	25.2	24.1	23.2	24.0	23.1	21.9	21.8	21.9	23.8	24.0	27.0	(NA)
Self-employed.....	8.9	9.6	10.3	8.5	9.8	11.2	10.4	9.4	9.3	9.2	11.8	12.4	14.9	(NA)
Salaried.....	18.3	16.1	14.9	15.6	13.2	12.8	12.8	12.4	12.5	12.6	12.1	11.6	12.1	(NA)
Clerical and kindred workers.....	6.0	6.9	6.3	6.7	6.4	6.4	5.9	6.9	6.4	7.3	6.4	9.6	7.1	(NA)
Sales workers.....	7.5	7.3	7.3	6.3	7.5	8.4	7.7	6.5	5.5	7.0	7.1	6.3	6.5	(NA)
Craftsmen, foremen, and kindred workers.....	18.3	19.3	20.1	21.9	22.1	20.5	22.4	23.1	22.0	24.4	22.2	21.0	19.4	(NA)
Operatives and kindred workers.....	10.3	11.1	12.1	12.9	14.1	14.7	15.3	15.1	16.7	14.0	14.4	14.5	14.2	(NA)
Private household workers.....	0.1	0.1	(Z)	(Z)	(Z)	0.1	(Z)	0.1	0.2	(Z)	0.1	0.1	(Z)	(NA)
Service workers, exc. private household.....	3.4	3.1	2.9	2.8	2.8	3.3	3.1	4.3	3.8	3.2	3.2	4.0	4.0	(NA)
Farm laborers and foremen.....	0.4	0.1	0.1	0.3	0.1	0.2	0.1	0.1	0.4	0.5	0.3	(Z)	0.2	(NA)
Laborers, exc. farm and mine.....	1.6	1.8	2.3	2.5	2.5	2.7	2.4	2.8	2.6	2.4	2.5	2.4	2.7	(NA)

1 Includes semiprofessional workers.

2 Less than 0.1 percent.

NA Not available.



Table II-6.—FIFTHS OF FAMILIES RANKED BY SIZE OF MONEY INCOME, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
<b>TOP 5 PERCENT</b>														
<b>Age of Head</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	0.2	0.2	0.5	0.3	0.5	0.2	0.2	0.1	0.3	0.5	0.2	0.4	0.5	-
25 to 34 years.....	9.9	8.9	11.4	10.3	9.9	8.0	9.1	10.2	9.2	11.5	9.4	9.8	11.9	11.3
35 to 44 years.....	27.8	26.7	28.6	28.3	26.6	23.4	25.2	27.5	24.8	25.7	23.9	23.2	26.6	27.6
45 to 54 years.....	32.8	28.9	33.3	36.2	33.7	36.4	32.2	30.1	29.7	28.1	31.0	33.8	29.9	29.4
55 to 64 years.....	19.9	25.8	19.8	18.1	19.6	23.0	22.2	22.0	25.2	23.4	24.3	23.6	22.2	19.4
65 years and over.....	9.5	9.5	6.4	6.9	9.7	9.1	11.2	10.0	10.9	10.9	11.2	9.1	8.9	12.3
<b>Size of Family</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	(NA)	(NA)	100.0	100.0	100.0	100.0	100.0	100.0
2 persons.....	23.2	24.4	20.7	20.4	23.6	23.8	(NA)	(NA)	22.0	24.6	24.1	18.9	19.5	17.8
3 persons.....	17.5	19.7	20.6	22.8	18.3	24.7	(NA)	(NA)	23.9	23.8	22.9	24.3	21.4	20.6
4 persons.....	24.8	22.9	26.9	24.7	23.4	22.3	(NA)	(NA)	24.3	25.3	25.8	26.2	26.2	22.2
5 persons.....	19.1	18.2	18.1	16.7	18.1	17.4	(NA)	(NA)	14.3	14.4	14.1	15.4	13.8	18.6
6 persons.....	8.3	8.9	7.7	7.4	8.5	6.6	(NA)	(NA)	9.4	6.2	7.3	9.3	9.6	8.5
7 persons or more.....	7.1	5.8	6.0	7.9	8.1	5.1	(NA)	(NA)	6.1	5.7	5.9	9.8	9.4	12.4
<b>Number of Earners</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No earners.....	1.2	1.2	0.6	1.3	1.4	1.3	2.2	2.5	1.0	1.1	1.9	0.4	1.0	0.5
1 earner.....	41.9	44.9	44.5	37.4	41.1	42.3	40.1	34.5	39.2	43.4	51.1	44.3	43.8	51.1
2 earners.....	31.7	30.9	32.8	36.3	32.4	32.0	30.9	30.5	32.4	27.4	23.4	25.7	27.2	23.0
3 earners or more.....	25.3	23.1	22.0	25.0	25.1	24.4	26.8	32.6	27.4	28.1	23.6	29.6	28.0	25.3
<b>Type of Family</b>														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male head.....	98.0	97.7	97.0	96.6	96.8	96.0	95.6	96.7	95.9	96.6	96.7	94.4	94.9	95.9
Married, wife present.....	95.4	94.8	94.0	93.5	94.4	92.9	92.5	92.8	91.9	93.9	93.0	89.8	89.4	91.5
Wife in paid labor force.....	28.0	24.8	25.3	29.3	26.0	24.5	24.8	25.9	28.8	24.9	16.1	18.4	(NA)	(NA)
Wife not in paid labor force.....	67.4	69.9	68.7	64.2	68.4	68.4	67.7	67.0	63.0	69.0	76.9	71.4	(NA)	(NA)
Other marital status.....	2.6	3.0	3.1	3.2	2.4	3.2	3.1	3.9	4.0	2.5	3.7	4.3	5.5	4.4
Female head.....	1.9	2.3	3.0	3.3	3.2	3.9	4.4	3.3	4.1	3.4	3.3	5.6	5.1	4.1

—Represents zero.

NA Not available.

Table II-6.—FIFTHS OF FAMILIES RANKED BY SIZE OF MONEY INCOME, BY SELECTED CHARACTERISTICS: 1947 TO 1960—Con.

Selected characteristics	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
TOP 5 PERCENT--Con.														
Number of Related Children Under 18														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No children.....	44.2	45.0	39.0	41.3	43.2	46.9	48.1	44.7	49.9	52.2	48.3	47.6	45.8	40.7
1 child.....	14.8	17.0	20.4	20.1	16.7	19.2	19.7	20.7	19.3	19.7	22.3	23.2	21.2	26.0
2 children.....	18.7	17.1	20.7	20.3	19.0	18.1	18.7	20.6	18.5	17.7	17.7	17.1	21.1	18.3
3 children.....	13.5	12.9	12.2	10.9	13.0	9.9	9.0	8.4	8.7	6.6	7.7	8.2	6.2	9.8
4 children.....	5.6	5.3	4.5	4.8	5.6	3.2	2.4	3.8	2.8	2.1	2.6	1.9	2.9	5.2
5 children.....	2.2	1.5	1.7	1.9	1.4	1.5	1.1	0.5	0.5	1.0	0.8	1.5	1.1	
6 children or more.....	1.1	1.2	1.5	0.7	1.2	1.0	1.0	1.3	0.4	0.6	0.6	0.4	1.6	
Region and Color														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White.....	98.2	98.8	98.4	99.1	98.9	99.1	98.7	98.8	98.3	99.2	98.9	99.1	98.4	99.0
Nonwhite.....	1.8	1.2	1.6	0.9	1.1	0.9	1.3	1.2	1.7	0.8	1.1	0.9	1.6	1.0
Northeast.....	30.4	30.7	33.9	32.3	30.7	24.4	28.6	28.3	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
North Central.....	24.0	27.1	27.7	30.9	35.8	34.2	31.7	34.7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
South.....	19.0	20.7	18.8	17.8	15.9	24.1	22.5	18.2	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
White.....	18.6	20.4	18.5	17.5	15.9	24.1	22.3	17.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Nonwhite.....	0.4	0.2	0.2	0.2	0.1	-	0.2	0.3	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
West.....	26.6	21.5	19.6	19.0	17.6	17.3	17.2	18.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Employment Status and Occupation of Head														
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Employed.....	91.9	92.8	94.8	92.3	92.9	92.1	92.5	91.2	91.6	93.6	93.7	91.1	95.8	(NA)
Unemployed.....	1.5	0.7	0.6	1.9	0.5	0.6	0.9	1.1	8.4	0.2	0.3	1.1	0.5	(NA)
In Armed Forces or not in labor force.....	6.6	6.5	4.6	5.8	6.6	7.3	6.7	7.7		6.2	6.0	7.8	3.7	(NA)
Employed.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(NA)
Professional, technical, & kindred workers..	29.2	29.4	31.1	28.6	27.3	22.1	22.7	22.1	21.7	18.3	20.4	17.0	16.9	(NA)
Self-employed.....	11.2	12.0	12.8	10.7	9.3	10.3	9.6	7.4	9.7	9.4	10.7	8.4	9.0	(NA)
Salaried.....	17.9	17.4	18.3	17.9	18.0	11.8	12.9	14.6	12.0	9.1	9.6	18.4	17.9	(NA)
Farmers and farm managers.....	1.9	2.4	2.8	1.4	2.1	3.6	3.8	5.0	6.0	7.5	8.3	7.2	12.1	(NA)
Managers, off'ls, & proprietors, exc. farm..	43.1	41.2	38.2	36.6	37.8	36.9	38.7	32.2	33.8	38.1	41.1	43.0	39.7	(NA)
Self-employed.....	12.8	14.8	15.2	14.1	18.4	21.3	18.2	14.7	16.6	19.9	23.3	25.2	23.2	(NA)
Salaried.....	30.3	26.4	23.0	22.5	19.4	15.6	20.5	17.5	17.3	18.1	17.8	17.3	16.0	(NA)
Clerical and kindred workers.....	2.8	4.2	3.7	3.4	3.2	4.2	3.4	6.2	4.8	4.4	4.2	5.1	4.0	(NA)
Sales workers.....	7.3	8.2	7.5	7.7	6.9	10.8	7.4	6.1	6.2	6.9	7.1	4.7	5.9	(NA)
Craftsmen, foremen, and kindred workers....	9.2	8.6	9.8	13.0	11.9	12.3	13.0	15.1	13.0	14.3	10.8	12.1	8.7	(NA)
Operatives and kindred workers.....	4.0	3.9	4.9	6.9	7.9	6.7	7.7	9.7	9.5	6.0	5.5	7.5	8.8	(NA)
Private household workers.....	0.1	0.1	(Z)	(Z)	0.1	(Z)	(Z)	(Z)	0.2	(Z)	0.1	0.2	(Z)	(NA)
Service workers, exc. private household.....	1.6	1.4	0.8	1.0	1.9	2.1	1.2	1.9	2.8	3.2	1.4	1.9	2.6	(NA)
Farm laborers and foremen.....	0.2	(Z)	0.2	(Z)	(Z)	0.3	0.1	(Z)	0.7	0.8	(Z)	(Z)	0.2	(NA)
Laborers, exc. farm and mine.....	0.6	0.9	1.0	1.4	0.9	1.1	2.1	2.0	1.5	0.4	1.1	1.2	1.1	(NA)

—Represents zero. NA Not available. Z Less than 0.1 percent. † Includes semiprofessional workers.

Source: Herman P. Miller, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.



this group occurred during the immediate postwar years, 1947 to 1950, when living arrangements were still unsettled because of rapid demobilization of millions of servicemen and also because of the severe housing shortage. These factors, combined with relatively low Social Security payments, caused many widows and elderly couples to live with married children where they were classified as relatives of the head rather than as family heads. As a result, a relatively small proportion (about one-fourth) of the low-income families were headed by persons over 65 years of age. By 1951, when the housing shortage was considerably alleviated and Social Security payments to retired workers were increased considerably, many aged parents found it possible to live apart from their children. However, since their incomes were quite low, these new families increased as a proportion of the total in the bottom income group. By 1951, families headed by a person 65 years old or over increased from about 26 percent during 1947-1950, to 31 percent of the total and they remained at that level throughout the decade. This tendency for elderly couples to live apart from their children is also reflected in the fact that the proportion of two-person families in the bottom fifth rose from 47 percent during 1947-1950 to about 52 percent in 1951, and it remained at that level for most of this period. A similar process appears to be involved in families with a female head. During 1947-1949, about 18 percent of all families in the lowest fifth had a female head. The proportion rose to 23 percent in 1950 and it stayed at about that level for the remainder of the period.

Other demographic characteristics of the families in the lowest income group, such as color, residence, and number of children under 18 years old, did not change significantly during the entire postwar period. However, there were some changes in economic characteristics, which in some respects appear to be related to the splitting up of families described above. In 1948, only 22 percent of the families in the lowest fifth were headed by a person who was not in the labor force. This proportion rose to 31 percent in 1949, 36 percent in 1950, and it averaged about 42 percent during 1957-1960. The relatively small proportion of family heads not in the labor force in 1948-1949 could be related to the fact that many elderly persons and widows do not appear in the statistics as family heads during those years. Once these groups established their own homes, the proportion of heads not in the labor force increased because older men and women are less likely to work than are the heads of younger families.

Aside from a slight drop in the relative importance of farmers, there were no significant changes in the occupational composition of the lowest fifth of the families during the postwar years. Farmers were the single most important group within the lowest fifth, accounting for 31 percent of the total in 1950 and a somewhat smaller proportion in 1960. Operatives and craftsmen accounted for about one-fourth of the total in 1950 and 1960 and laborers accounted for somewhat less than one-fifth of the total.

The stability in the composition of the lowest 20 percent of the families stands in marked contrast to the previously described changes in the composition of families having incomes under \$3,000 (in constant dollars). The latter measure



creates the impression that the disadvantaged groups—the aged, broken families, and the unskilled—formed a constantly growing proportion of low-income families during the fifties. The classification by fifths leaves the entirely different impression that the lower income families had about the same characteristics in 1960 as they had had ten years earlier. If low income is defined as less than \$3,000, then in 1947, when the average income for all families was about \$4,000 (in constant dollars), many families near the middle of the distribution were included in the low-income group. However, in 1960, when the average income was about \$5,500, the low-income group was more highly concentrated near the bottom of the distribution. For this reason it is difficult to interpret the meaning of the changes in terms of constant dollars. In contrast, the significance of the findings with respect to the lowest fifth is much clearer. In all years the families in the lowest fifth have the same relative position in the distribution. The figures suggest that within the lowest fifth of the distribution, disadvantaged groups have not lost ground relative to others. They appear to have received their proportionate share of the increase in real incomes during the past decade.

*Changes in the characteristics of the top 20 percent and the top 5 percent.* Two different measures are used to describe changes in the characteristics of the higher income families—the top 20 percent and the top 5 percent of the income distribution. In 1960, these families had incomes over \$9,000 and \$14,000, respectively. The dollar limits for other years are shown in appendix B.

Focusing first on the highest 20 percent, we find few significant changes in their demographic characteristics (see table II-6). Some adjustments in family composition took place immediately after World War II. However, during the fifties, there was no significant change in the distribution by age, sex, or color of head or by size of family or number of children. The proportion of all high-income families has shown a distinct tendency to rise in the Western States during recent years. In 1953, about 17 percent lived in this region; by 1958, the proportion rose to 20 percent and in 1960 it was 25 percent.

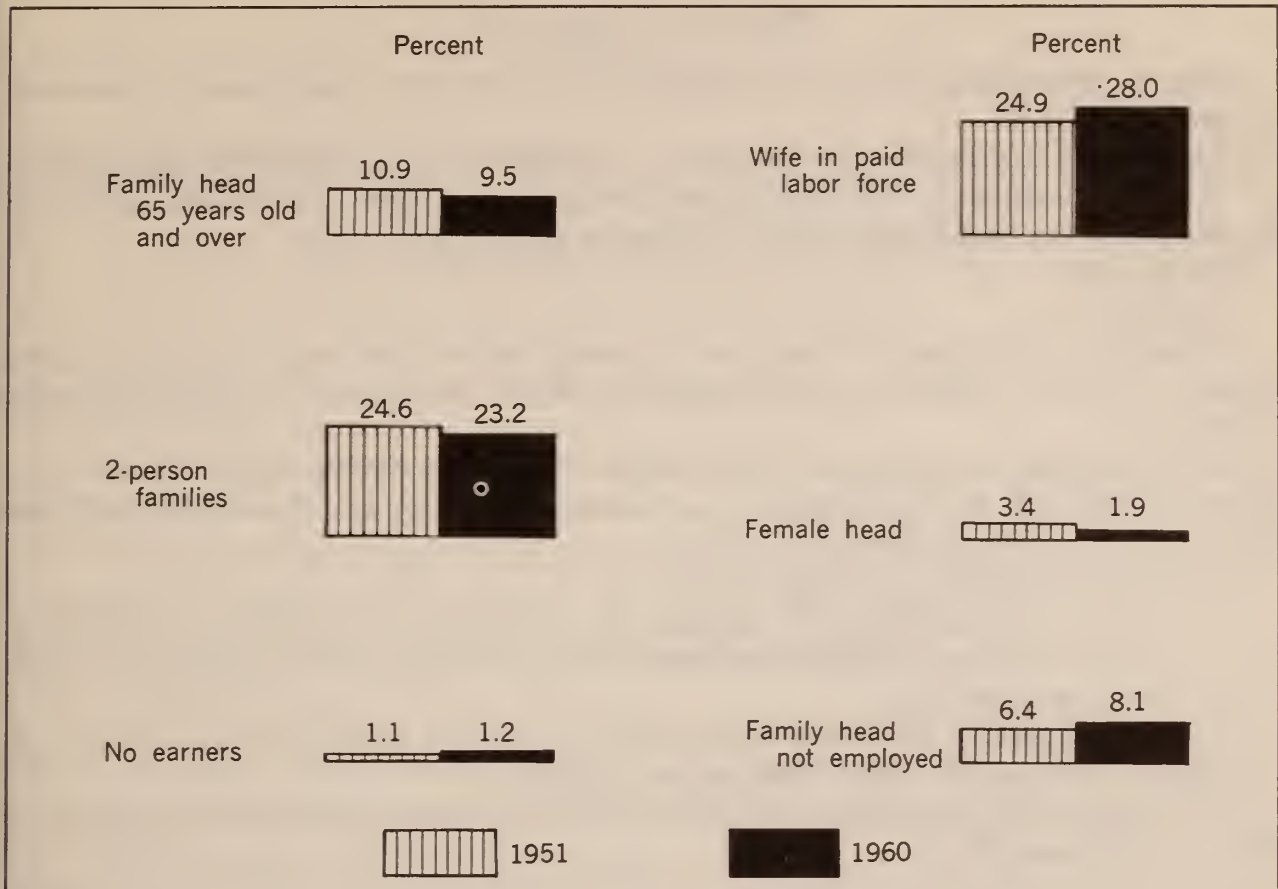
The employment rate for married women increased for all of the quintiles shown. For the top 20 percent, this rate rose from 27 percent in 1949-1950 to 39 percent in 1960. The change in the employment rate for this group was greater than for families lower in the income distribution.

The change in the occupational distribution of employed heads of households for the highest 20 percent was striking. In 1948, the self-employed comprised the single largest group among high-income families, accounting for 26 percent of the total. By 1960, this proportion had dropped to 15 percent. In contrast, the proportion of salaried professional and managerial workers had increased. In 1948, these two occupation groups accounted for 20 percent of the total as compared with 37 percent in 1960.

Most of the conclusions based on the top 20 percent of the families apply to the top 5 percent as well (see figure II-8). The number of cases is, of course, much smaller for the top 5 percent and the figures are subject to relatively large



Figure II-8.—SELECTED CHARACTERISTICS OF THE TOP FIVE PERCENT: 1960 AND 1951



Source: Herman P. Miller, *Trends in the Income of Families and Persons in the United States, 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.

variations due to sampling. Nevertheless, the general trends exhibited by the data are consistent with those observed for the top 20 percent.

The only major difference between the two sets of data is that there was no significant increase in the employment rates for married women among the top 5 percent. In 1951, about 25 percent of the wives were in the labor force as compared with 28 percent in 1960. These figures suggest that the top 5 percent of the families were able to retain their relative income position without increasing the employment of wives, whereas families just below them on the income scale (i.e., those in the 80–95 percentiles) in many cases would have dropped to relatively lower income levels without the additional income provided by a working wife.

### NOTES

<sup>1</sup> Joint Committee on the Economic Report, *Low-Income Families and Economic Stability*, 81st Cong., 2d sess., 1949, p. 2.

<sup>2</sup> Selma F. Goldsmith, "Low-Income Families and Measures of Income Inequality" (Mimeograph). Paper presented at December 1961 meetings of the Catholic Economic Association, p. 9.

<sup>3</sup> John K. Galbraith, *The Affluent Society*, Houghton Mifflin Co., Boston, 1958, p. 323.

<sup>4</sup> Dorothy S. Brady, "Research on the Size Distribution of Income," *Studies in Income and Wealth*, Vol. 13, National Bureau of Economic Research, 1951, p. 30.

<sup>5</sup> John K. Galbraith, *op. cit.*, p. 3.

<sup>6</sup> *Ibid.*, p. 323.

<sup>7</sup> *Ibid.*, pp. 323, 324.

## NOTES—Continued

<sup>8</sup> Leon H. Keyserling, *Poverty and Deprivation in the U.S.*, Conference on Economic Progress, 1962, p. 8.

<sup>9</sup> Leon H. Keyserling, *Progress or Poverty*, Conference on Economic Progress, 1964.

<sup>10</sup> Robert J. Lampman, *The Low-Income Population and Economic Growth*, Joint Economic Committee, 86th Cong., 1st sess., December 1959, p. 4.

<sup>11</sup> Ibid., p. 34.

<sup>12</sup> Ibid., p. 4.

<sup>13</sup> Statement of Dorothy S. Brady at *Hearings Before Subcommittee on Low-Income Families*. Joint Committee on the Economic Report, 81st Cong., 1st sess., December 1949, p. 475.

<sup>14</sup> More detailed levels for both families and individuals are shown in U.S. Bureau of the Census, Herman P. Miller, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, Technical Paper No. 8.

<sup>15</sup> Leon H. Keyserling, op. cit., pp. 19, 20.

<sup>16</sup> Unless otherwise specified, all census data are in terms of total money incomes and not family personal income (including nonmoney income) which is the concept used by the Office of Business Economics.

<sup>17</sup> It was not possible to exclude unrelated individuals 14 to 24 years old from the unpublished tabulation which underlies the data in figure II-2.

<sup>18</sup> U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, No. 37, table 15.



## CHAPTER III

# WAGE AND SALARY TRENDS FOR MAJOR OCCUPATION GROUPS

### Introduction

In this chapter, trends in income differentials among occupations are considered in relation to overall changes in income distribution. Occupations will therefore be viewed as the fundamental building blocks which, when aggregated, are largely responsible for the shape of the overall income curve; and changes in the total will be related to changes in the component parts.

There is, of course, an auxiliary interest—more or less sociological—in identifying the high-paying and low-paying occupations, and those which have had greater than average gains in income, as well as those which have lagged behind. This type of analysis calls for a somewhat different orientation toward specific occupations, and would involve detailed study of the requirements of specific jobs, the demographic characteristics of persons employed in these jobs, and the relation of the jobs to each other and to the changing needs of the economy. Such a level of detail, while appropriate for an analysis of labor force behavior or occupational trends, goes far beyond the scope of the present study.

Between 1939 and 1949, aggregate wages and salaries tripled, increasing from \$46 billion to \$134 billion; by 1959, the amount nearly doubled again, rising to \$259 billion. This very large increase over the 20-year period was accompanied by a marked change in the distribution by income levels.

In 1939 the average wage earner received about \$800 during the entire year. By 1949 the figure rose to \$2,000, and by 1959, to \$3,100 (table III-1). In 1939, \$5,000 represented the top of the scale for the wage earner, and only 1 percent of the workers earned this much or more. By 1949 the proportion of workers earning \$5,000 or more rose to 4 percent, and by 1959, to 26 percent. Although some of the rise represented merely inflation of dollar values, even in real terms there was a very substantial increase in the proportion of workers with wages and salaries over \$5,000. For men alone—typically the main wage earners in their families and likely to be full-time workers—the changes were even more striking.

Changes in the level of wage or salary income and in the frequency distribution of the earners were accompanied by a marked change in the dispersion (or inequality) in the distribution of this type of income.

Table III-1.—WAGE OR SALARY INCOME OF PERSONS, BY SEX: 1959, 1949, AND 1939

Wage or salary income	Both sexes			Male			Female		
	1959	1949	1939	1959	1949	1939	1959	1949	1939
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
\$1 to \$999.....	25.1	27.8	60.0	16.0	19.6	52.8	40.3	44.4	79.0
\$1,000 to \$1,999.....	11.7	21.9	29.2	8.6	18.1	33.4	17.0	29.6	18.1
\$2,000 to \$2,499.....	6.6	13.2	5.3	4.9	12.9	6.8	9.3	13.9	1.6
\$2,500 to \$2,999.....	5.5	11.0	2.0	4.6	13.3	2.6	7.1	6.4	0.5
\$3,000 to \$4,999.....	25.4	22.1	2.4	27.9	30.1	3.1	21.4	5.7	0.6
\$5,000 and over.....	25.7	4.1	1.0	38.1	6.1	1.4	5.0	0.1	0.1
Median income.....	\$3,084	\$2,016	\$789	\$4,209	\$2,476	\$939	\$1,527	\$1,208	\$555

Source: U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, Nos. 7, 11, and 35.

Table III-2, which shows the distribution of aggregate wage or salary income by quintiles during 1939-1959, makes it quite evident that marked changes in the distribution of aggregate wages and salaries took place during the war years. Between 1939 and 1945 the share received by the highest fifth decreased from 49 percent to 44 percent. In contrast, the entire postwar period was marked by stability in the distribution of wages. The greatest difference in the share received by the top fifth between any two years in the entire period 1945 to 1959 does not exceed 2 percentage points. Conclusions regarding the stability of income distribution during the postwar period, based on the data for wages, are identical with those based on total money income shown in table III-3. Therefore, we can see in the data for persons the same general picture previously discerned in the data for families—a decrease in income concentration during the expansion of economic activity during World War II, and stability during the postwar period. The question that now remains is to what extent the pattern of change can be explained by wage movements within occupation groups.

Wage differentials by skill (BLS data)

Most analyses of changes in wage levels, particularly those involving trends in differentials for skilled and unskilled workers, are based on the hourly earnings data collected by the Bureau of Labor Statistics.<sup>1</sup> The BLS data, in contrast to the figures on annual earnings collected in the decennial censuses and yearly household surveys have an understandable appeal for several reasons: they define occupations more accurately and more specifically; and the hourly earnings figures separate differences due to wage rate variations from differences due to variations in extent of employment. The Census data, in contrast to the BLS data have the disadvantage of representing employment during a single week, which, of course, often may be quite different from usual or major employment. On the other hand, the Census figures show various demographic factors that might be associated with wage differentials, and the information on annual earnings which they provide is a better measure of financial returns associated with different kinds of work. Each set of figures, therefore, has its uses, and each provides a somewhat different picture of the changing relationship between employment and earnings.



Table III-2.—PERCENT OF AGGREGATE WAGE OR SALARY INCOME RECEIVED BY EACH FIFTH OF WAGE OR SALARY RECIPIENTS RANKED BY INCOME, BY SEX, FOR SELECTED YEARS, 1939 TO 1960

Year and sex	Total	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
BOTH SEXES						
1960.....	100.0	1.8	7.8	17.0	26.6	46.8
1959.....	100.0	1.9	8.1	17.4	26.8	45.9
1958.....	100.0	1.8	7.7	16.8	25.8	47.9
1957.....	100.0	2.1	8.3	17.2	25.9	46.5
1956.....	100.0	2.1	8.4	17.3	25.9	46.3
1955.....	100.0	2.2	8.7	17.9	26.2	45.0
1954.....	100.0	2.5	9.2	18.0	25.3	45.0
1953.....	100.0	2.6	9.7	18.0	25.3	44.3
1951.....	100.0	3.0	10.6	18.9	25.9	41.6
1950.....	100.0	2.3	9.7	18.3	25.7	44.0
1949.....	100.0	2.6	10.1	18.7	26.2	42.4
1948.....	100.0	2.9	10.2	18.6	25.5	42.8
1947.....	100.0	2.9	10.3	17.8	24.7	44.3
1945.....	100.0	2.9	10.1	17.4	25.7	43.9
1939.....	100.0	3.4	8.4	15.0	23.9	49.3
MALE						
1960.....	100.0	2.5	10.9	18.9	25.2	42.5
1959.....	100.0	2.7	11.4	19.0	25.5	41.5
1958.....	100.0	2.4	10.6	18.1	24.0	44.8
1957.....	100.0	2.8	11.5	18.4	24.5	42.8
1956.....	100.0	3.0	11.9	18.6	24.4	42.1
1955.....	100.0	3.2	11.9	19.1	25.0	40.9
1954.....	100.0	3.4	12.0	18.7	24.3	41.6
1953.....	100.0	3.6	12.5	18.8	24.0	41.1
1951.....	100.0	4.9	13.1	19.3	24.4	38.3
1950.....	100.0	3.5	12.5	18.7	24.3	41.0
1949.....	100.0	3.6	12.3	19.2	24.8	40.1
1948.....	100.0	3.9	12.7	19.0	24.7	39.7
1947.....	100.0	4.5	11.9	17.9	26.4	39.3
1945.....	100.0	3.8	12.4	18.5	25.4	39.9
1939.....	100.0	3.5	9.0	15.5	23.3	48.7
FEMALE						
1960.....	100.0	2.4	5.9	16.1	28.2	47.3
1959.....	100.0	2.5	5.7	16.2	28.0	47.6
1958.....	100.0	2.6	5.5	16.0	28.2	47.7
1957.....	100.0	2.7	6.4	16.4	28.2	46.4
1956.....	100.0	2.8	6.3	15.9	28.5	46.5
1955.....	100.0	2.9	6.5	16.1	27.8	46.7
1954.....	100.0	2.9	7.2	17.0	28.0	44.9
1953.....	100.0	3.0	7.5	17.6	28.2	43.8
1951.....	100.0	3.3	7.8	18.3	27.7	42.9
1950.....	100.0	2.0	7.5	17.6	29.5	43.4
1949.....	100.0	2.2	8.0	18.3	28.6	42.9
1948.....	100.0	3.0	8.5	18.4	28.6	41.5
1947.....	100.0	2.8	8.7	18.0	26.7	43.8
1945.....	100.0	4.5	10.3	18.5	27.0	39.7
1939.....	100.0	3.0	9.2	16.8	24.5	46.5

Source: Data for 1953-60 from unpublished tabulations used to prepare comparable distribution by occupation and industry groups which appear in Herman P. Miller, *Trends in the Income of Families and Persons in the United States, 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963; and for 1939-51 from Herman P. Miller, *Income of the American People*, Wiley, 1955, p. 104.

Table III-4 shows BLS figures which are often cited in analyses of long-term trends in earnings differentials between skilled and unskilled workers. These figures are not generally shown together in a single table because the data for 1907 to 1947 were compiled differently from those shown for later years. However, since there has been some tendency for experts in the field, including BLS officials, to treat the data as if they were roughly comparable, they have been assembled in the form shown in table III-4.<sup>2</sup> These figures suggest a progressive narrowing of wage differentials between skilled and unskilled workers during

Table III -3.-PERCENT OF AGGREGATE TOTAL MONEY INCOME RECEIVED BY EACH FIFTH OF INCOME RECIPIENTS RANKED BY INCOME, BY SEX, FOR SELECTED YEARS, 1944 TO 1960

Year and sex	Total	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
BOTH SEXES						
1960.....	100.0	2.0	6.6	15.1	25.9	50.4
1959.....	100.0	2.1	6.7	15.2	26.0	50.1
1958.....	100.0	2.1	7.0	15.6	26.1	49.3
1957.....	100.0	2.5	8.4	16.9	25.8	46.4
1956.....	100.0	2.2	7.2	15.9	25.6	49.2
1955.....	100.0	2.3	7.2	15.7	25.4	49.4
1954.....	100.0	2.4	7.5	15.8	25.0	49.1
1953.....	100.0	2.4	7.9	16.3	25.3	48.0
1951.....	100.0	2.5	8.4	16.7	24.7	47.7
1950.....	100.0	2.3	7.9	16.4	24.3	49.1
1949.....	100.0	2.4	8.4	16.5	25.0	47.7
1948.....	100.0	2.9	8.7	16.6	24.2	47.6
1947.....	100.0	3.0	8.9	16.2	23.4	48.5
1945.....	100.0	3.1	9.0	16.0	24.5	47.4
1944.....	100.0	2.6	8.5	15.6	24.2	49.1
MALE						
1960.....	100.0	2.6	9.5	17.3	24.7	45.9
1959.....	100.0	2.8	9.8	17.6	24.8	45.0
1958.....	100.0	2.8	9.8	17.9	25.0	44.5
1957.....	100.0	2.9	10.0	18.0	24.7	44.5
1956.....	100.0	2.9	10.2	18.0	24.4	44.4
1955.....	100.0	3.0	10.1	17.7	24.7	44.6
1954.....	100.0	3.0	10.0	17.5	23.7	45.6
1953.....	100.0	3.0	10.6	17.9	23.9	44.3
1951.....	100.0	3.5	11.3	17.9	23.4	43.9
1950.....	100.0	3.0	10.7	17.2	23.4	45.7
1949.....	100.0	3.2	10.2	17.8	24.1	44.7
1948.....	100.0	3.5	10.7	17.4	23.1	45.3
1947.....	100.0	3.7	10.6	16.7	22.7	46.3
1945.....	100.0	4.1	9.5	17.0	24.1	45.3
1944.....	100.0	3.4	10.0	17.2	23.8	45.6
FEMALE						
1960.....	100.0	2.6	6.5	13.5	26.5	51.0
1959.....	100.0	2.7	6.4	13.4	26.1	51.4
1958.....	100.0	2.8	6.4	13.5	26.3	50.9
1957.....	100.0	2.7	7.7	14.5	25.7	49.4
1956.....	100.0	2.9	6.7	13.8	26.5	50.1
1955.....	100.0	3.0	6.8	13.7	26.2	50.3
1954.....	100.0	3.1	7.3	14.4	26.6	48.3
1953.....	100.0	3.1	7.3	14.5	26.5	48.4
1951.....	100.0	3.5	7.3	14.6	27.5	47.1
1950.....	100.0	3.7	6.9	14.6	27.3	47.5
1949.....	100.0	3.8	7.4	15.3	26.7	46.8
1948.....	100.0	3.9	8.2	15.7	26.5	45.7
1947.....	100.0	3.8	7.9	15.9	25.3	47.1
1945.....	100.0	4.7	9.1	16.4	26.1	43.7
1944.....	100.0	4.3	8.4	15.4	24.3	47.6

Source: Data for 1953-60 from unpublished tabulations used to prepare comparable distribution by occupation and industry groups which appear in Herman P. Miller, *Trends in the Income of Families and Persons in the United States, 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963; and for 1944-51 from Herman P. Miller, *Income of the American People*, Wiley, 1955, p. 103.

the first 50 years of this century. In 1907, the median earnings of skilled workers in manufacturing industries were about twice those of unskilled workers. By the end of World War I, median earnings of skilled workers were only 75 percent greater, and by the end of World War II, only about 55 percent greater. Thus, during a 40-year period, the differential between skilled and unskilled workers was reduced by about 50 percent, or by an average of about 1 percent per year.

The narrowing of differentials appears not only to have continued into the early postwar period, but to have accelerated somewhat. Between 1947 and



Table III-4.—BLS DATA RELATING TO EARNINGS OF SKILLED AND UNSKILLED OCCUPATIONS IN MANUFACTURING INDUSTRIES, FOR SELECTED PERIODS, 1907 TO 1956

Period	Earnings ratio ( $\frac{\text{skilled labor}}{\text{unskilled labor}}$ )	Period	Earnings ratio ( $\frac{\text{skilled labor}}{\text{unskilled labor}}$ )
1955-56.....	138	1931-32.....	180
1952-53.....	137	1918-19.....	175
1945-47.....	155	1907.....	207
1937-40.....	165		

Source: Data for 1952-53 and 1955-56 from BLS Bulletin No. 1188, *Wages and Related Benefits*, p. 35. Based on a comparison of 12 jobs in manufacturing establishments in 15 areas that were included in the occupational wage surveys conducted in 1953 and 1956. The figures represent the ratio between the hourly earnings of skilled maintenance workers and male janitors in manufacturing establishments.

Data for 1907-47 from Harry Ober, "Occupational Wage Differentials, 1907-47," *Monthly Labor Review*, August 1948. For each period, representative unskilled and skilled occupations were selected for each manufacturing industry for which data were available. Average earnings for each unskilled job were used in constructing a relative for the corresponding skilled occupation. These relatives were then arrayed and the medians determined.

1953, the differential dropped from 55 percent to 37 percent, or at the rate of about 3 percent per year; between 1953 and 1956, however, there was no further apparent reduction. On the basis of this evidence, BLS has concluded that:

The long-term trend toward narrowing of skill differentials has leveled off temporarily, at least, with skilled manual workers, office workers, and unskilled workers maintaining their relative pay position in the past three years.<sup>3</sup>

Some caution should be exercised in interpreting trends during the fifties. Unlike surveys made during the earlier years (when a representative selection of unskilled jobs was used), the more recent surveys express differentials in terms of the hourly earnings received by janitors. If the basis for comparison had been some other unskilled occupation, or group of occupations, different trends might have been obtained.

A somewhat different view of postwar trends in earnings differentials between skilled and unskilled workers is had from a BLS study of hourly earnings of production workers in nonelectrical machinery manufacturing. This industry includes establishments engaged in such diverse activities as the production of ball and roller bearings; construction, mining, and material handling machinery and equipment; metal working machinery and equipment; and electronic computing machines. The BLS study presents figures on average straight-time hourly earnings for production workers in specified occupations at various times during the postwar years; the averages for various periods are shown in the published reports. A summary, representing the percent change for various periods between 1945 and 1961, is presented in table III-5 and figure III-1 for all production workers, laborers, and tool and die makers. These data, particularly the data in figure III-1, suggest a continued narrowing of wage differentials between skilled and unskilled workers during the postwar period. Between 1945 and 1961 the average hourly earnings of all production workers in machinery manufacturing increased by 142 percent; the earnings of laborers, however, increased by 170 percent, whereas those of tool and die makers rose by only 127 percent.

Table III-5.—PERCENT INCREASE IN AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF ALL PRODUCTION WORKERS IN MACHINERY MANUFACTURING, BY SELECTED OCCUPATIONS, FOR SELECTED PERIODS, 1945 TO 1961

Period	All production workers	Laborers, material handling	Tool and die makers (other than jobbing)
Jan. 1945 to Mar.-May 1961.....	142.4	169.7	126.7
Jan. 1955 to Jan. 1956.....	4.8	3.6	4.9
Jan. 1956 to Jan. 1958.....	10.2	12.6	9.8
Jan. 1958 to Jan. 1959.....	3.3	4.7	4.1
Jan. 1959 to Jan. 1960.....	4.1	3.4	3.9
Jan. 1960 to Mar.-May 1961.....	3.1	4.0	3.6

Source: BLS Bulletin No. 1309, *Industry Wage Survey, Machinery Manufacturing*, March-May 1961, table 3.

### Wage differentials among major occupation groups, 1939 to 1960

Between the years 1939 and 1960, American workers enjoyed an unparalleled period of full employment and rising incomes. There were, to be sure, some years of recession when average earnings did not rise significantly, or even dropped slightly, but for the period as a whole, most occupations experienced continuous growth in earnings. This fact is brought out very clearly in table III-6, which shows median wages and salaries for each year for males and females by occupation groups.

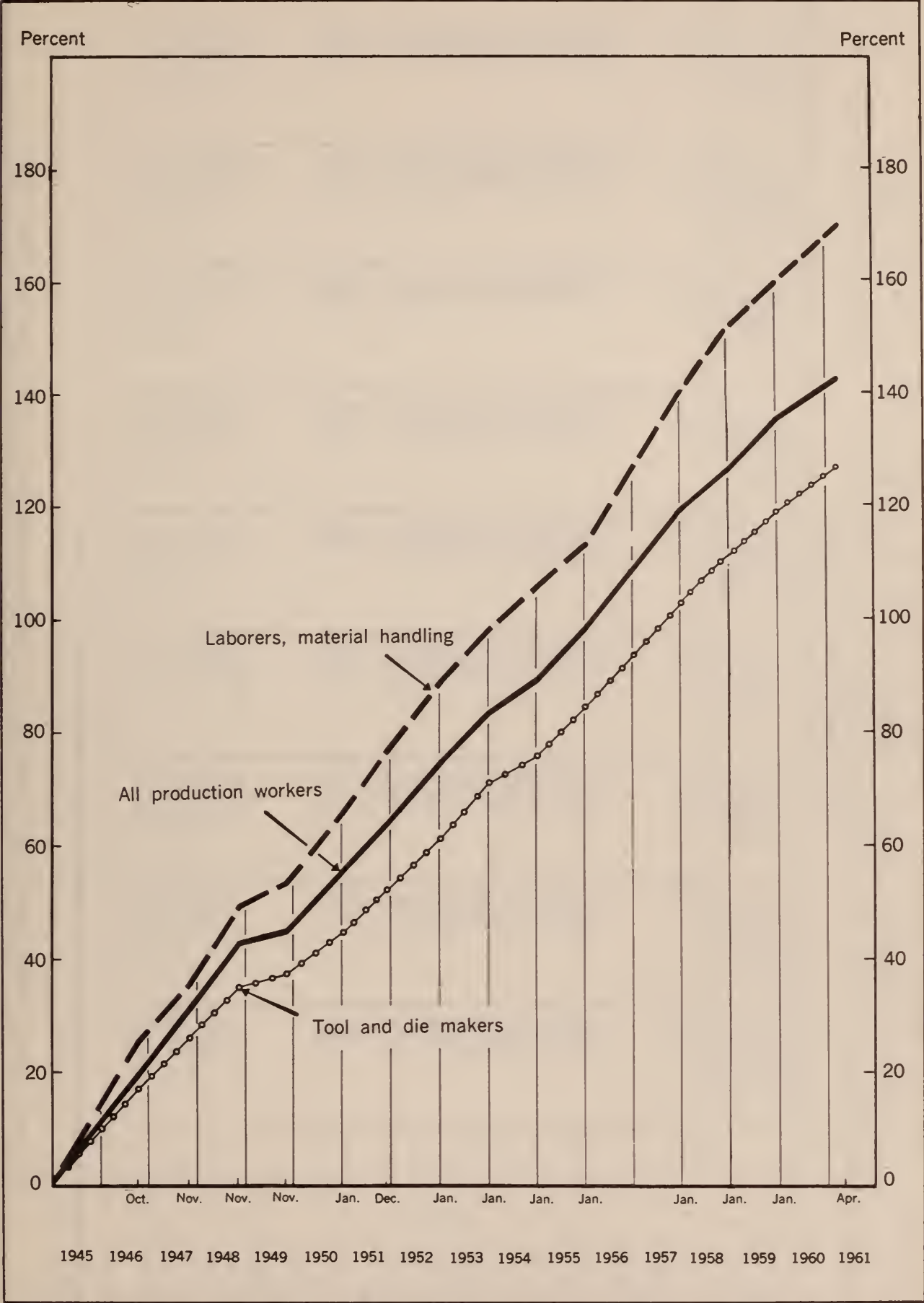
Though all occupations showed substantial gains over the entire period, the increases were by no means uniform. Among men, for whom the figures are most meaningful because they tend to represent the earnings of full-time workers responsible for supporting a family, the medians for all occupations either tripled or quadrupled. Farm laborers had the smallest absolute and relative gains and these were entirely concentrated in the period during or immediately after World War II. Farm labor is the only occupation in which since 1950 incomes have declined, on the average.

Among women, the gains between 1939 and 1960 were lower and more variable than for men, and also—because of the intermittent employment of most women—somewhat more difficult to interpret. Median wages and salaries of private household workers did not quite double; wages of saleswomen barely doubled; managerial workers and clerical workers tripled their wages, on the average; and the greatest relative gains were attained by professional workers and operatives.

On closer examination, table III-6 reveals significant patterns with regard to changes in income distribution. Among men, the figures show that between 1939 and 1950, when incomes moved strongly toward equalization, men in the lower paid jobs made the greatest relative gains. For example, median wages and salaries in the lowest paid occupations—farm laborers and foremen—increased by over 200 percent; and medians for the three next lowest paid groups of jobs—nonfarm laborers, service workers, and operatives—increased by 175 percent. Craftsmen, whose annual earnings rank closer to the middle range, had increases of 160 percent; and the highest paid workers—those in professional and managerial jobs—had the smallest increases, about 100 percent. In



Figure III-1.—PERCENT INCREASE IN AVERAGE STRAIGHT-TIME HOURLY EARNINGS FOR ALL PRODUCTION WORKERS AND TWO SELECTED OCCUPATIONS IN MACHINERY INDUSTRIES, JANUARY 1945 TO SPECIFIED DATES



Source: BLS Bulletin No. 1309, *Industry Wage Survey, Machinery Manufacturing*, March-May 1961, p. 6.

Table III-6.—MEDIAN WAGE OR SALARY INCOME OF ALL WORKERS WITH WAGE OR SALARY INCOME AND OF YEAR-ROUND FULL-TIME WORKERS, BY MAJOR OCCUPATION GROUP AND SEX, FOR SELECTED YEARS, 1939 TO 1960

[Figures for farmers and farm managers not shown because relatively few persons in this occupation depend on wages and salaries as their major source of income.  
Minus sign ( - ) denotes decrease]

Year, extent of employment, and sex	Professional, technical, and kindred workers	Managers, officials, and pro- prietors, exc. farm	Clerical and kindred workers	Sales workers	Craftsmen, foremen, and kindred workers	Operatives and kindred workers	Private household workers	Service workers, except private household	Farm laborers and foremen	Laborers, except farm and mine
MALE										
All Workers										
1960.....	\$6,343	\$6,864	\$4,800	\$4,742	\$5,443	\$4,275	(B)	\$3,155	\$893	\$2,559
1959.....	6,287	6,670	4,691	4,660	5,272	4,101	(B)	3,192	968	2,834
1958.....	5,956	6,034	4,398	4,291	4,970	3,909	(B)	3,090	750	2,486
1957.....	5,601	5,872	4,252	4,379	4,777	3,984	(B)	2,894	940	2,763
1956.....	5,465	5,589	4,150	4,275	4,619	3,824	(B)	2,946	892	2,635
1955.....	5,055	5,290	3,870	4,315	4,356	3,586	(B)	2,778	971	2,387
1954.....	4,905	5,234	3,735	3,823	4,246	3,349	(B)	2,818	923	2,358
1953.....	4,816	5,071	3,766	3,716	4,156	3,415	(B)	2,806	817	2,406
1952.....	4,691	4,696	3,421	3,576	3,756	3,216	(B)	2,374	847	2,244
1951.....	4,071	4,143	3,366	3,539	3,601	3,064	(B)	2,426	982	2,170
1950.....	3,874	4,171	3,002	3,148	3,405	2,736	(B)	2,299	986	1,850
1939.....	1,809	2,136	1,421	1,277	1,309	1,007	\$429	833	309	673
Percent increase:										
1950-60.....	64	65	60	51	60	56	(B)	37	-9	38
1939-50.....	114	95	111	147	160	172	(B)	176	219	175
1939-60.....	251	221	238	271	316	325	(B)	279	189	280
Year-round Full-time Workers										
1960.....	\$6,848	\$7,241	\$5,247	\$5,755	\$5,868	\$4,977	(B)	\$4,089	\$1,731	\$3,872
1959.....	6,835	6,910	5,130	5,545	5,654	4,607	(B)	4,002	1,637	3,930
1958.....	6,513	6,431	4,839	5,332	5,365	4,460	(B)	3,898	1,406	3,672
1957.....	5,990	6,110	4,564	5,143	5,216	4,397	(B)	3,605	1,518	3,710
1956.....	5,847	5,967	4,388	5,005	4,981	4,235	(B)	3,521	1,526	3,410
1955.....	5,382	5,584	4,162	4,937	4,712	4,046	(B)	3,565	(B)	3,105
1939.....	2,100	2,254	1,564	1,451	1,562	1,268	\$549	1,019	365	991

B Fewer than 100 cases in the sample reporting with \$1 or more of wage or salary income.



Table III-6.—MEDIAN WAGE OR SALARY INCOME OF ALL WORKERS WITH WAGE OR SALARY INCOME AND OF YEAR-ROUND FULL-TIME WORKERS, BY MAJOR OCCUPATION GROUP AND SEX, FOR SELECTED YEARS, 1939 TO 1960—Con.

[Figures for farmers and farm managers not shown because relatively few persons in this occupation depend on wages and salaries as their major source of income.  
 Minus sign ( - ) denotes decrease]

Year, extent of employment, and sex	Professional, technical, and kindred workers	Managers, officials, and pro- prietors, exc. farm	Clerical and kindred workers	Sales workers	Craftsmen, foremen, and kindred workers	Operatives and kindred workers	Private household workers	Service workers, exc. private household	Farm laborers and foremen	Laborers, except farm and mine
FEMALE										
All Workers										
1960.....	\$3,868	\$3,500	\$3,039	\$1,359	(B)	\$2,368	\$473	\$1,427	\$378	(B)
1959.....	3,615	3,556	2,955	1,474	(B)	2,267	502	1,287	(B)	(B)
1958.....	3,501	3,313	2,943	1,604	(B)	2,075	467	1,255	(B)	(B)
1957.....	3,344	3,118	2,802	1,342	(B)	2,130	459	1,249	(B)	(B)
1956.....	3,114	2,976	2,699	1,204	(B)	2,130	486	1,151	(B)	(B)
1955.....	2,963	3,158	2,597	1,182	(B)	2,048	502	1,135	(B)	(B)
1954.....	3,008	(B)	2,468	1,348	(B)	1,852	495	1,154	(B)	(B)
1953.....	2,929	2,548	2,420	1,158	(B)	1,901	554	1,223	(B)	(B)
1952.....	2,695	2,705	2,270	1,075	\$2,075	1,908	433	1,128	(B)	(B)
1951.....	2,495	2,679	2,147	1,176	(B)	1,739	447	996	(B)	(B)
1950.....	2,264	2,089	2,064	1,148	(B)	1,616	448	895	(B)	(B)
1939.....	1,023	1,107	966	636	827	582	296	493	176	\$538
Percent increase:										
1950-60.....	71	68	47	18	(B)	47	6	59	(B)	(B)
1939-50.....	121	89	114	81	(B)	178	51	82	(B)	(B)
1939-60.....	278	216	215	114	(B)	307	60	189	(B)	(B)
Year-round Full-time Workers										
1960.....	\$4,384	\$4,173	\$3,586	\$2,428	(B)	\$2,970	\$1,133	\$2,418	(B)	(B)
1959.....	4,385	3,934	3,493	2,340	(B)	2,916	1,146	2,241	(B)	(B)
1958.....	4,146	3,771	3,388	2,333	(B)	2,745	1,161	2,073	(B)	(B)
1957.....	3,890	3,890	3,287	2,289	(B)	2,611	980	1,995	(B)	(B)
1956.....	3,650	3,525	3,145	2,090	(B)	2,632	879	1,950	(B)	(B)
1955.....	3,500	(B)	3,065	(B)	(B)	2,489	(B)	1,759	(B)	(B)
1939.....	1,277	1,218	1,072	745	\$995	742	339	607	\$245	\$738

B Fewer than 100 cases in the sample reporting with \$1 or more of wage or salary income.

Source: U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, annual issues.

other words, during this period of equalization in the overall income curve, there was also a reduction in the differentials between high-paid and low-paid occupations.

There has been marked stability in the distribution of income since 1950, with changes in income gains for the various occupation groups showing a pattern distinctly different from that of the earlier period. Although the higher paid jobs have made slightly greater relative gains than the lower paid, the differences have not been great enough to suggest a change in income distribution. Thus the highest paid workers—those in professional and managerial jobs—had increases of about 65 percent; craftsmen and clerical workers, who rank next in terms of annual wages, had gains of 60 percent; and salesmen and operatives had gains of somewhat more than 50 percent. Workers in the lowest paid groups of jobs—service workers and nonfarm laborers—had increases of only about 40 percent, and as previously stated, wages of farm laborers declined.

This evidence suggests a consistency in the patterns of change in annual wages among occupations and in the overall income curve. An examination of the changes since 1950 in the distribution of wages and salaries *within* each major occupation group will help determine whether these changes also correspond to those in the overall income curve.

It should be noted that corroborative evidence from the 1950 and 1960 Censuses suggests that trends in wage differentials among occupation groups for the country as a whole appear in most cases at the State level also. Table III-7 presents the percent increase in median income between 1939 and 1949 and 1949 and 1959 for males in selected occupation groups, by States. The purpose of this table is to ascertain whether the trends in earnings differentials for the Nation as a whole occurred more or less uniformly throughout the country or whether there were wide variations in the patterns observed for the States, with the overall trend largely representing a weighted average of widely differing trends.

Although the same income concept could not be used for each year, it is unlikely that this shortcoming seriously affects most of the comparisons shown—particularly those for craftsmen, operatives, and nonfarm laborers. The medians for 1939 are based on men reporting \$100 or more of wage or salary income in that year; the \$0 to \$99 group was excluded because there was no way to separate those without wages (and who may have had some self-employment income) from those with wages of \$1 to \$99. The figures for 1949 are based on men reporting \$1 or more of total money income. In the three occupation groups for which 1939 to 1949 comparisons are shown, the differences between median wages and salaries and median total money income are quite small, since men in these occupation groups are predominantly wage or salary workers without other major sources of earnings or income. At the national level, in 1949 the difference between median wages and salaries and median total money income for these groups amounted to only a few dollars.<sup>4</sup>



Table III-7.—PERCENT INCREASE IN MEDIAN INCOME DURING 1949 TO 1959, AND 1939 TO 1949 FOR MALES IN SELECTED MAJOR OCCUPATION GROUPS, BY STATES

[Minus sign ( - ) denotes decrease]

Region, division, and State	Percent increase, 1949 to 1959 <sup>1</sup>						Percent increase, 1939 to 1949 <sup>2</sup>		
	Professional, managerial, and kindred workers	Craftsmen, foremen, and kindred workers	Operatives and kindred workers	Laborers, exc. farm and mine	Farmers and farm managers	Farm laborers and foremen	Craftsmen, foremen, and kindred workers	Operatives and kindred workers	Laborers, exc. farm and mine
NORTHEAST									
New England:									
Maine.....	65	65	55	62	35	31	134	172	182
New Hampshire.....	72	70	70	65	51	38	131	156	167
Vermont.....	70	68	64	56	43	23	121	149	162
Massachusetts.....	72	70	68	53	44	25	122	149	162
Rhode Island.....	68	66	67	66	38	27	117	154	169
Connecticut.....	77	77	77	65	52	15	136	152	157
Middle Atlantic:									
New York.....	69	69	60	66	44	22	136	148	176
New Jersey.....	75	72	71	67	36	38	129	150	162
Pennsylvania.....	67	66	66	57	40	18	136	168	177
NORTH CENTRAL									
East North Central:									
Ohio.....	69	71	73	56	22	-6	139	153	178
Indiana.....	67	69	64	49	18	-3	136	149	182
Illinois.....	68	72	67	66	14	25	145	167	180
Michigan.....	59	68	59	38	37	-10	138	150	179
Wisconsin.....	67	69	67	59	26	4	134	142	181
West North Central:									
Minnesota.....	68	68	60	47	4	6	137	139	209
Iowa.....	60	60	61	51	4	-3	153	188	217
Missouri.....	69	72	70	62	42	19	149	160	215
North Dakota.....	52	53	44	25	16	10	161	196	300
South Dakota.....	51	54	49	30	3	14	159	159	243
Nebraska.....	61	65	65	43	11	31	143	179	217
Kansas.....	73	68	64	49	30	11	146	188	216
SOUTH									
South Atlantic:									
Delaware.....	71	73	66	45	60	49	127	150	181
Maryland.....	72	71	69	59	62	42	137	149	163
District of Columbia.....	39	42	45	51	(B)	(B)	98	136	141
Virginia.....	67	63	55	47	33	28	140	163	177
West Virginia.....	62	62	74	38	45	-2	133	144	205

See footnotes at end of table.

Table III-7.—PERCENT INCREASE IN MEDIAN INCOME DURING 1939 TO 1949, AND 1949 TO 1959 FOR MALES IN SELECTED MAJOR OCCUPATION GROUPS, BY STATES—Con.

[Minus sign ( - ) denotes decrease]

Region, division, and State	Percent increase, 1949 to 1959 <sup>1</sup>							Percent increase, 1939 to 1949 <sup>2</sup>		
	Professional, managerial, and kindred workers	Craftsmen, foremen, and kindred workers	Operatives and kindred workers	Laborers, exc. farm and mine	Farmers and farm managers	Farm laborers and foremen	Craftsmen, foremen, and kindred workers	Operatives and kindred workers	Laborers, exc. farm and mine	
SOUTH--Con.										
South Atlantic--Con.										
North Carolina.....	62	56	54	40	20	-14	143	172	165	
South Carolina.....	64	57	48	33	23	-2	157	183	174	
Georgia.....	73	69	63	50	47	26	163	168	200	
Florida.....	67	68	67	60	103	47	155	173	211	
East South Central:										
Kentucky.....	61	70	74	42	39	6	141	160	215	
Tennessee.....	68	65	56	48	20	-2	145	163	171	
Alabama.....	73	65	60	42	19	9	157	176	193	
Mississippi.....	37	63	67	40	21	-3	151	142	159	
West South Central:										
Arkansas.....	63	53	37	49	61	18	164	172	189	
Louisiana.....	64	66	56	46	32	32	154	183	197	
Oklahoma.....	67	66	54	45	63	27	132	178	266	
Texas.....	63	60	66	44	43	38	145	175	201	
WEST										
Mountain:										
Montana.....	56	55	40	38	35	31	122	156	199	
Idaho.....	58	64	54	52	38	17	147	167	235	
Wyoming.....	56	59	47	43	52	34	124	162	202	
Colorado.....	81	72	69	52	48	59	139	155	193	
New Mexico.....	69	71	60	48	97	44	150	178	215	
Arizona.....	74	72	59	48	194	22	120	147	173	
Utah.....	65	67	57	48	51	-1	130	159	202	
Nevada.....	66	68	57	60	53	40	112	148	162	
Pacific:										
Washington.....	63	63	61	53	73	5	151	154	187	
Oregon.....	61	65	60	62	55	15	156	168	178	
California.....	83	75	65	61	66	38	142	138	159	

B Base less than 200.

<sup>1</sup> Based on median total money income for persons reporting \$1 or more of income in 1949 and on median total money earnings for persons reporting \$1 or more of earnings in 1959.

<sup>2</sup> Based on median wage or salary income for persons reporting \$100 or more of wages and salaries in 1939, and on median total money income for persons reporting \$1 or more of income in 1949.

Source: 1960 Census of Population, chapter C, table 68; 1950 Census of Population, Vol. II, table 78; and 1940 Census of Population, Vol. III, *The Labor Force*, table 16.



The figures for 1959 represent median total money earnings for men reporting \$1 or more of earnings. In most of the occupation groups for which 1949 to 1959 comparisons are made, the differences between median total money earnings and median total money income are also quite small, amounting to only several dollars. It is only in the professional and managerial group that that difference is at all substantial, and here it has the effect of minimizing the percent increase. Since this group had greater relative gains than most of the others in practically all States, the conceptual problem does not impair the general conclusions.

The patterns observed for the country as a whole were found also in the great majority of States. In practically every State, between 1939 and 1949, nonfarm laborers made greater relative gains than operatives, and operatives made greater relative gains than craftsmen. In other words, during this decade the tendency for men in the lower paid jobs to make greater relative gains than those in higher paid jobs was a phenomenon widespread throughout the country.

On the other hand, the figures for these same three occupations—laborers, operatives, and craftsmen—showed a reversal of this pattern during the decade 1949 to 1959. Thirty-three of the 49 States for which data were examined—including the District of Columbia but excluding Hawaii and Alaska—showed a consistent pattern in which craftsmen made greater relative gains than operatives, who in turn made greater gains than laborers.

In 5 of the 16 States which deviated from this pattern, operatives and craftsmen made about the same relative gains, but both made greater gains than laborers; in 10 of the other States, operatives made greater percentage increases than craftsmen, but both made larger relative gains than laborers. It is significant that during 1939–1949, laborers made greater relative gains than operatives or craftsmen in every State, whereas during 1949–1959 they made greater relative gains only in the District of Columbia.

These data strongly support the conclusion that during the decade 1939 to 1949 the greatest relative gains were made by the lower paid workers; and that between 1949 and 1959 the greatest relative gains were made by higher paid workers.

Further support is given this conclusion by the gains made during 1949–1959 by professional and managerial workers and by farmers and farm laborers. Figures for these groups are not shown for 1939 because the restriction of the 1940 Census data to wages and salaries would not provide very meaningful results for such groups as farmers, businessmen, or independent professionals who depend on self-employment income rather than wages and salaries. However, the figures for 1949 to 1959 show that relative gains for professional and managerial workers, who are among the highest paid, were in most cases about equal to or greater than gains made by craftsmen. In contrast, farm laborers—who are on the average the lowest paid workers—had a decrease in income in 10 States; and where gains were made, in all but 2 States, they were proportionately smaller than gains received by nonfarm laborers.



Farmers—also among the lowest paid workers in terms of annual earnings—tended to have smaller relative increases in earnings than nonfarm laborers in most parts of the country. Relative gains for farmers were below those of nonfarm laborers in every State in the Northeast and North Central Regions. They were also lower in about half the States in the South and West; in these regions, however, farmers attained smaller relative gains than the higher paid craftsmen and professional and managerial workers.

### **Inequality of wages within major occupation groups, 1939 to 1960**

The preceding section focused on the possible impact on the overall income curve of differential changes in the level of wages among occupation groups. It was found that during the decade ending in 1949, when incomes were becoming more equally distributed, lower paid occupations attained greater relative gains than the higher paid; the reverse was true during the decade ending in 1959, which was marked by stability in income distribution. The present section directs attention to the association between overall changes in income distribution and the spread of wages within occupation groups.

Table III-8 shows the share of wages received by the highest paid fifth of the workers in each occupation during 1939-1960. Although the shares received by each fifth were computed, only the top fifth is shown, since this proportion is a reasonably sensitive measure of the change in dispersion. The figures were computed in the following way. First, the workers within each occupation group were ranked by wage or salary income levels from lowest to highest, and an estimate was made of the number of workers at each level. (In preparing this estimate it was assumed that persons who did not report on wage or salary income were distributed by income levels in the same proportions as those who did report.) An average income was then selected for each level, and estimates of the aggregates were obtained by multiplying the number of persons at each income level by the average for that level. Sources cited in table III-8 give the specific levels used. In the 1939 data, the midpoint of each level under \$5,000 was used as the average, and \$9,000 was used as the average for the open-end interval (\$5,000 and over). This estimate was made on the basis of an analysis of tax returns for that year and other relevant information. For all other years, the midpoint of \$500 or \$1,000 intervals was used as the average, and averages for the open-end intervals were generally obtained by fitting Pareto curves to the data.

It is important to distinguish between the figures for men and women in table III-8. The figures for women are highly influenced by the fact that a great many women are part-time and intermittent workers. In such occupations as sales workers, private household workers, and service workers, where large numbers of women work only on a part-time basis, and others are employed full time throughout the year, it is difficult to assess the meaning of changes in the dispersion of wages. The fact that the distribution of wages in these occupations was more unequal in the postwar period than in 1939 undoubtedly reflects to a considerable extent the increase of part-time employment in these jobs.



Table III-8.—PERCENT OF AGGREGATE WAGE OR SALARY INCOME RECEIVED BY THE HIGHEST PAID FIFTH OF EXPERIENCED WORKERS IN SELECTED MAJOR OCCUPATION GROUPS, BY SEX: 1939 TO 1960

Year and sex	Professional, technical, and kindred workers	Managers, officials, and proprietors, exc. farm	Clerical and kindred workers	Sales workers	Craftsmen, foremen, and kindred workers	Operatives and kindred workers	Private household workers	Service workers, except private household	Farm laborers and foremen	Laborers, except farm and mine
MALE										
1960.....	37	48	33	45	32	34	(B)	39	51	41
1959.....	38	43	33	43	33	34	(B)	39	51	39
1958.....	37	42	33	42	32	34	(B)	37	51	40
1957.....	37	45	33	41	32	33	(B)	39	48	38
1956.....	37	45	32	40	32	33	(B)	36	50	38
1955.....	36	43	32	42	32	33	(B)	36	46	39
1954.....	37	43	32	42	32	34	(B)	38	48	37
1953.....	38	45	32	40	32	33	(B)	35	51	37
1952.....	38	46	32	39	32	32	(B)	38	47	36
1951.....	37	46	31	40	33	32	(B)	36	45	36
1950.....	39	47	33	44	33	33	(B)	35	46	37
1939.....	(NA)	(NA)	38	47	37	37	(B)	42	(NA)	39
FEMALE										
1960.....	36	36	35	44	(B)	36	53	43	64	(B)
1959.....	36	37	35	44	(B)	36	50	44	(B)	(B)
1958.....	37	41	35	43	(B)	36	51	43	(B)	(B)
1957.....	37	40	33	44	(B)	35	51	42	(B)	(B)
1956.....	38	38	34	44	(B)	35	50	43	(B)	(B)
1955.....	37	44	34	42	(B)	36	48	43	(B)	(B)
1954.....	37	(B)	33	43	(B)	35	49	41	(B)	(B)
1953.....	36	38	33	42	(B)	35	47	41	(B)	(B)
1952.....	37	39	33	43	35	34	50	42	(B)	(B)
1951.....	35	35	33	42	(B)	35	47	41	(B)	(B)
1950.....	36	42	33	42	(B)	34	49	43	(B)	(B)
1939.....	42	(NA)	35	37	(B)	35	40	38	(B)	(B)

B Number of persons in sample employed in this occupation too small to warrant showing percentage separately.

NA Not available.

Source: Data for 1950-60 from Herman P. Miller, *Trends in the Income of Families and Persons in the United States: 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963; and for 1939 from U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, No. 11, table K.

Table III-9.—PERCENT OF AGGREGATE TOTAL MONEY INCOME RECEIVED BY THE TOP 20 PERCENT AND TOP 5 PERCENT OF EMPLOYED MALES, BY MAJOR OCCUPATION GROUP: 1947 TO 1960

Income rank and major occupation group	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947
TOP 20 PERCENT														
Total employed.....	43	42	42	42	42	42	42	41	42	42	44	43	43	44
Professional, technical, and kindred wkrs....	42	43	42	43	45	41	44	41	46	41	48	47	47	48
Self-employed.....	59	53	52	61	54	47	58	52	57	46	43	43	60	48
Salaries.....	37	37	37	36	39	36	37	38	37	39	37	39	38	48
Farmers and farm managers.....	52	53	53	50	55	57	56	57	55	58	57	60	61	62
Managers, officials, and propr's, exc. farm..	48	45	45	49	47	52	48	51	48	48	52	51	54	52
Self-employed.....	49	47	49	51	51	52	51	51	49	53	57	57	62	58
Salaries.....	48	44	42	43	45	41	46	45	48	45	47	45	46	45
Clerical and kindred workers.....	32	33	34	33	32	33	33	33	32	32	33	33	33	35
Sales workers.....	46	45	43	42	42	44	43	41	42	41	44	40	44	44
Craftsmen, foremen, and kindred workers....	32	33	32	32	32	32	32	32	32	33	33	32	33	34
Operatives and kindred workers.....	33	33	34	33	33	33	33	33	32	32	33	33	32	32
Service workers, exc. private household.....	38	38	36	37	36	36	37	35	37	36	35	37	36	34
Farm laborers and foremen.....	52	50	51	49	49	47	48	51	48	51	45	45	44	43
Laborers, exc. farm and mine.....	40	38	39	38	37	38	36	36	35	35	37	36	35	36
TOP 5 PERCENT														
Total employed.....	19	18	17	18	18	18	18	17	19	19	21	20	20	21
Professional, technical, and kindred wkrs....	18	19	18	20	21	18	21	18	24	18	(B)	(B)	(B)	(B)
Self-employed.....	(B)	(B)	(B)	(B)	(B)	(B)	(B)	25	(B)	(B)	(B)	(B)	(B)	(B)
Salaries.....	13	14	14	13	17	13	14	15	15	14	16	13	16	14
Farmers and farm managers.....	22	25	24	20	26	29	25	25	26	31	29	31	36	32
Managers, officials, and propr's, exc. farm..	23	20	19	25	23	30	23	28	24	(B)	(B)	(B)	(B)	(B)
Self-employed.....	21	20	23	26	23	26	23	25	23	(B)	(B)	(B)	(B)	(B)
Salaries.....	25	19	17	19	23	18	24	22	28	23	(B)	(B)	(B)	(B)
Clerical and kindred workers.....	11	12	12	12	11	11	12	12	12	11	11	12	11	13
Sales workers.....	21	20	17	18	17	19	17	15	17	16	18	14	20	19
Craftsmen, foremen, and kindred workers....	10	10	10	10	10	10	10	11	10	10	11	10	11	12
Operatives and kindred workers.....	11	10	11	11	10	10	11	11	10	10	10	10	10	10
Service workers, exc. private household.....	12	14	12	12	12	12	14	11	12	12	11	11	12	10
Farm laborers and foremen.....	21	18	19	20	19	18	17	17	19	25	16	16	16	15
Laborers, except farm and mine.....	13	12	13	13	12	12	11	12	11	11	12	11	11	11

B Percent not shown where the lower limit of the top 5 percent was \$10,000 or more for 1947-50 or \$15,000 or more for 1951-60.  
Source: Herman P. Miller, *Trends in the Income of Families and Persons in the United States, 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.



From an analytical viewpoint, the figures in table III-8 for men are much more significant than the figures for women. The figures for men show, without exception, a narrowing of wage differentials within each occupation group during the forties, but no change since that time. These trends correspond exactly with those noted for all wage and salary workers.

Table III-9 shows trends in the distributions of total income (rather than just wages and salaries) for men employed in each major occupation group during 1947-1960 and presents for each year the share of income received by the top 20 percent and the top 5 percent of the workers within each occupation. These figures show the same basic patterns previously set forth for the wage and salary data in table III-8. The only occupation groups with any appreciable change in income concentration were farmers and businessmen. Each of these occupations showed some tendency toward an equalization in income distribution, reflecting, perhaps, a decrease in the proportion of marginal units. Among farmers, for example, the share of income received by the top fifth dropped from 62 percent in 1947 to 52 percent in 1960. For businessmen, during the same period the share received by the top fifth dropped from 58 percent to 49 percent. With the exception of these two groups, there was no noticeable change in income concentration within the top 20 percent or the top 5 percent for any of the occupations shown. These figures lend further support to the conclusion that the stability in income shares since 1947 has been accompanied by relative stability in earnings differentials within occupations.

## NOTES

<sup>1</sup> For an excellent summary of some of the more important literature in this field see M. W. Reder, "The Theory of Occupational Wage Differentials," *American Economic Review*, December 1955.

<sup>2</sup> See BLS Bulletin No. 1188, *Wages and Related Benefits*, p. 35; H. M. Douty, "Union Impact on Wage Structures," *Proceedings of the Sixth Annual Meeting, Industrial Relations Research Association*, p. 3; M. W. Reder, op. cit., p. 842; and Robert Ozanne, "A Century of Occupational Differentials in Manufacturing," *The Review of Economics and Statistics*, August 1962, p. 293.

<sup>3</sup> BLS Bulletin No. 1188, *Wages and Related Benefits*, p. 33.

<sup>4</sup> U.S. Bureau of the Census, *U.S. Census of Population: 1950*, Vol. IV, Special Reports, Part 1, Chapter B, *Occupational Characteristics*, tables 19 and 22.





## CHAPTER IV

# WAGE AND SALARY TRENDS FOR DETAILED OCCUPATIONS: 1939 TO 1959

### Source and limitations of the data

The analysis of long-term changes in earnings differentials for detailed occupations can be made only from data collected in the past three decennial censuses. The basic statistics for 1939 and 1949 have been compiled and analyzed earlier in the 1950 Census monograph on income distribution.<sup>1</sup> This chapter presents comparable information for the same occupations for 1959, and reexamines the figures for the entire period. Preceding this analysis, however, certain technical problems associated with the data should be explained since they may affect the interpretation and validity of the results.

The major purpose of this chapter is to measure changes in the distribution of wages within occupations over time. Data from the 1940 Census for 116 occupation groups for men were used as the bench mark, and the tabulations for later years were made in such a way as to be most consistent with these data.<sup>2</sup> This orientation creates certain problems with respect to both the income classification and the occupation groupings. The data shown for 1939 are from the complete count of 1940 Census returns for persons in the experienced labor force reporting \$100 or more of wage or salary income. Although the published reports include persons with \$0 to \$99, they are not shown in the present study because a large proportion were not wage or salary workers and had no wage or salary income. For example, independent professionals whose sole source of earnings was from self-employment would be included at the \$0 to \$99 level in the distribution by wages and salaries.

The figures for 1949 are from the 3 $\frac{1}{3}$ -percent sample of 1950 Census returns for wage or salary workers, and the figures for 1959 are from the 5-percent sample of 1960 Census returns for the experienced civilian labor force. In each case the data are for workers reporting \$1 or more of wage or salary income. There are several conceptual differences among the three sets of figures. The data for 1939 and 1959 are for the experienced labor force, whereas the figures for 1949 are for wage or salary workers. This factor, however, is not serious since, with relatively few exceptions, there is only a small difference between the number of persons in the experienced labor force and the number of wage or salary workers in the occupations selected for study.

A second difference among the three sets of figures is that the data for 1939 are for persons with \$100 or more of wages and salaries, whereas the data for

1949 and 1959 are for persons with \$1 or more of this type of income. Here again the difference in coverage is not of great importance. An analysis of income data for major occupation groups in the Current Population Survey shows very little difference between distributions of workers with \$1 or more of wages and salaries and those with \$100 or more. Moreover, excluding persons with \$1 to \$99 of wages and salaries from the 1939 data reduces the dispersion of the distributions for that year, and therefore leads to an understatement of the decrease of inequality of income distribution which occurred between 1939 and 1949 within most occupations.

It was not feasible in this analysis to include all occupations. Those that were included were selected by tabulating the data for 1949 and 1959 by detailed occupations, which were then merged to form the intermediate occupation groups as defined in the 1940 Census. The detailed occupations included in each of the intermediate groups for 1949 and 1959 are shown in appendix C.

Since within this framework it was found that some occupations contained a very small number of workers, it was questionable whether reliable statistics for these occupations could have been obtained from either the 3 $\frac{1}{3}$ -percent sample of 1950 Census returns or the 5-percent sample of 1960 returns. Accordingly, in order to eliminate occupations with small numbers of workers from the study, the analysis was restricted to occupations having more than 25,000 workers with \$100 or more of wage or salary income in 1939.

Moreover, the fact that the data had been tabulated by wage or salary income, rather than by total income or total earnings, suggested eliminating certain occupations that contain a large proportion of self-employed workers or employees who receive a large part of their wages in the form of free meals, lodging, etc., instead of cash. In line with this reasoning, such occupations as physicians and surgeons, lawyers and judges, farmers and farm managers, and farm laborers were omitted from the study, as were also certain miscellaneous groups—generally residuals of broader occupation groups—which frequently could not be consistently identified in the three censuses, or, if they were identifiable, were so heterogeneous as to make the meaning of the data for them ambiguous. The fact that about 75 percent of the men with \$100 or more of wage or salary income in 1939 are included in the occupations selected indicates the coverage of the data. For the total experienced labor force in 1940, slightly more than half of all workers were accounted for.

Some of the tables in this section are for full-year workers; this category, in the 1950 and 1960 Censuses, included persons who did any work for pay or profit for 50 weeks or more. Persons who worked regularly on a part-time basis—newsboys, for example—were thus counted as full-year workers. The 1940 Census definition of weeks worked was somewhat different from that used in 1950 and 1960. In 1940, enumerators were instructed to convert part-time work to equivalent full-time weeks; thus, a full-year worker in 1939 was a person who worked full time during the entire year. The subsequent change



in the definition led to higher figures on the proportion of full-year workers in 1949 and 1959.

Another difference between the 1939 figures and those for later years relates to members of the Armed Forces. In the 1940 Census, the small number of servicemen were classified for the most part as "soldiers, sailors, marines, or coast guards," but those among them who were commissioned officers, professional and clerical workers, or craftsmen were classified by the particular occupation in which they were engaged rather than in the more general military service category. In the 1950 and 1960 Censuses, members of the Armed Forces were not classified by occupation and were excluded from the civilian labor force.

### **Occupations ranked by wage level, 1939 to 1959**

Table IV-1 which classifies the 116 occupations by wage levels in 1939, 1949, and 1959, was prepared by ranking all occupations from lowest to highest by median wage or salary income in each year. The occupations were then divided (approximately) into deciles based on number of workers, and the occupations included in each decile were identified. Messengers, for example, who were in the lowest decile in 1959 were also in the lowest decile in each of the two preceding censuses. This fact is indicated by the entry of "1" in the columns for 1939, 1949, and 1959, signifying the lowest decile in each year. Waiters, also, were in the lowest decile in 1959 but in the second decile in each of the preceding censuses.

Table IV-1 makes it quite clear that there is a high degree of stability in the structure of wages. Despite vastly different labor market conditions in 1939, 1949, and 1959, there were few marked changes in the relative income position of occupations. The greatest stability was found among the highest paid occupations. In the eighth, ninth, and tenth deciles in 1959, only one occupation—firemen—shifted rank by more than one decile during the 20-year period. In every other case, these high-paying occupations were in the same or an adjacent decile in both 1939 and 1959. The stable composition of the very highest decile is not surprising since it largely includes professional workers such as authors, chemists, college professors, engineers, and managers and officials of business establishments. Since most of these jobs require considerable skill, training, and long periods of education, it is to be expected that they will be among the highest paid from one period to the next. What is surprising is that two railroad jobs—locomotive engineers and conductors—have maintained their very high standing over two decades despite the decline in railroading as a major industry. The high standing of these occupations—along with locomotive firemen, who are in the ninth decile—may be due largely to the strength of their labor unions.

The ninth decile, in contrast to the very highest, contains more of a mixture of professional workers and craftsmen. In addition to artists, designers, pharmacists, and several other professional occupations, this decile includes foremen in construction and manufacturing, electricians, craftsmen in the printing trades, and linemen.

Table IV-1.—SELECTED OCCUPATIONS FOR MALE WAGE AND SALARY WORKERS  
RANKED BY MEDIAN WAGE OR SALARY INCOME: 1959, 1949, AND 1939

Occupations ranked by median wage or salary income in 1959	Decile designation of occupations included in each tenth		
	1959	1949	1939
LOWEST TENTH			
Messengers, exc. express.....	1	1	1
Newsboys.....	1	1	1
Shoemakers and repairers, exc. factory.....	1	2	2
Attendants, auto service and parking.....	1	1	2
Private household workers.....	1	1	1
Charmen, janitors, and porters.....	1	2	2
Waiters, bartenders, and counter workers.....	1	2	2
Service workers, exc. private household (n.e.c.).....	1	1	1
Fishermen and oystermen.....	1	1	1
Lumbermen, raftsmen, and wood choppers.....	1	1	1
Laborers:			
Lumber.....	1	1	1
Textile.....	1	2	1
Trade.....	1	1	1
SECOND TENTH			
Clergymen.....	2	3	7
Painters (construction), paperhangers, glaziers.....	2	3	3
Apprentices.....	2	2	1
Operatives:			
Knitting mills.....	2	5	4
Apparel.....	2	5	4
Textile.....	2	2	2
Lumber.....	2	1	2
Footwear.....	2	2	3
Leather.....	2	3	5
Guards and watchmen.....	2	3	5
Barbers, beauticians, and manicurists.....	2	2	4
Cooks, exc. private household.....	2	2	2
Elevator operators.....	2	2	5
Laborers:			
Food.....	2	2	3
Stone.....	2	3	2
Machinery.....	2	3	4
Transportation equipment.....	2	3	3
Construction.....	2	1	1
Transportation, exc. railway.....	2	2	1
Telecommunications.....	2	2	5
THIRD TENTH			
Drivers, bus, taxi, and truck, and deliverymen.....	3	4	4
Operatives--Food.....	3	5	5
Laborers:			
Paper.....	3	3	3
Metal.....	3	3	4
Railroads.....	3	3	2
FOURTH TENTH			
Musicians and music teachers.....	4	5	5
Shipping and receiving clerks.....	4	5	5
Stenographers, typists, and secretaries.....	4	8	8
Bakers.....	4	5	6
Carpenters.....	4	4	3
Molders, metal.....	4	5	6
Plasterers and cement finishers.....	4	5	4
Tailors and furriers.....	4	7	5
Mine operatives and laborers (n.e.c.).....	4	3	3
Painters, exc. construction and maintenance.....	4	5	5
Sailors and deck hands.....	4	3	2
Operatives:			
Stone.....	4	5	5
Metal.....	4	5	6
Longshoremen and stevedores.....	4	3	3
Laborers:			
Chemicals.....	4	5	3
Motor vehicles.....	4	5	5
FIFTH TENTH			
Mechanics and repairmen, and loom fixers.....	5	6	6
Stationary firemen.....	5	5	6
Operatives--Machinery.....	5	6	6



Table IV-1.—SELECTED OCCUPATIONS FOR MALE WAGE AND SALARY WORKERS  
RANKED BY MEDIAN WAGE OR SALARY INCOME: 1959, 1949, AND 1939—Con.

Occupations ranked by median wage or salary income in 1959	Decile designation of occupations included in each tenth		
	1959	1949	1939
SIXTH TENTH			
Social, welfare, and recreation workers.....	6	8	9
Salaried managers--eating and drinking places.....	6	7	7
Salesmen and sales clerks (n.e.c.).....	6	7	7
Blacksmiths, forgemen, and hammermen.....	6	7	5
Masons, tile setters, and stone cutters.....	6	6	5
Motormen, railway, mine, factory, etc.....	6	8	8
Operatives:			
Paper.....	6	5	5
Rubber.....	6	7	7
Transportation equipment.....	6	7	5
SEVENTH TENTH			
Sports instructors, athletes, entertainers.....	7	7	6
Teachers (n.e.c.).....	7	9	8
Salaried managers--personal services.....	7	8	9
Baggagemen, express messengers, railway mail clerks.....	7	9	10
Bookkeepers, accountants, cashiers, ticket agents.....	7	9	9
Mail carriers.....	7	9	10
Telegraph operators.....	7	9	9
Real estate agents and brokers.....	7	8	8
Boilermakers.....	7	9	8
Cabinetmakers and patternmakers.....	7	7	6
Inspectors (n.e.c.).....	7	9	9
Rollers and roll hands, metal.....	7	7	8
Roofers and sheet metal workers.....	7	7	6
Welders and flame-cutters.....	7	8	8
Operatives--motor vehicles.....	7	8	7
Policemen, sheriffs, and marshals.....	7	8	10
EIGHTH TENTH			
Salaried managers--retail trade, exc. eating and drinking....	8	10	9
Compositors and typesetters.....	8	10	8
Machinists, millwrights, and toolmakers.....	8	8	8
Plumbers and pipe fitters.....	8	9	8
Stationary engineers, cranimen, hoistmen.....	8	8	8
Structural metal workers.....	8	9	7
Brakemen and switchmen, railroad.....	8	9	9
Operatives--chemicals.....	8	8	8
Firemen, fire protection.....	8	8	10
NINTH TENTH			
Artists and art teachers.....	9	9	9
Designers and draftsmen.....	9	9	9
Pharmacists.....	9	10	9
Postmasters, and miscellaneous government officials.....	9	9	10
Insurance agents and brokers.....	9	9	10
Electricians.....	9	9	9
Foremen:			
Construction.....	9	9	8
Manufacturing.....	9	10	9
Transportation, communication, and other public utilities..	9	10	10
Linemen and servicemen, telegraphers, etc.....	9	8	9
Locomotive firemen.....	9	9	9
Printing craftsmen, exc. compositors and typesetters.....	9	10	9
HIGHEST TENTH			
Authors, editors, and reporters.....	10	10	10
Chemists.....	10	10	10
College presidents, professors, instructors (n.e.c.).....	10	10	10
Engineers, civil.....	10	10	10
Engineers, electrical.....	10	10	10
Engineers, mechanical.....	10	10	10
Conductors, railroad.....	10	10	10
Salaried managers:			
Manufacturing.....	10	10	10
Finance.....	10	10	10
Business and repair services.....	10	10	10
Transportation.....	10	10	10
Trade.....	10	10	10
Locomotive engineers.....	10	10	10

Source: Appendix table C-6.

The eighth decile contains no professional occupations. Aside from firemen—the only service workers—it includes mainly craftsmen and operatives in chemical plants.

The seventh decile is interesting in that it contains a relatively large number of occupations that were in much higher relative positions in 1939 and 1949. Most of these are government jobs—school teachers, mail carriers, and policemen—which attained relatively high standing in the past because of regularity of employment. In recent years, however, pay raises in these occupations have not kept pace with raises in other jobs. Still other occupations that dropped from a higher decile to seventh place were bookkeepers and accountants, salaried managers of personal service establishments, baggagemen, telegraph operators, boilermakers, and inspectors.

The lowest decile, like the highest two, experienced practically no change in occupational composition during these 20 years, there being no occupation in this group that shifted rank by more than one decile. In general, stability in the lowest decile is largely due to the fact that most of the workers are unskilled; and there was little if any increase in the demand for their services.

The second decile showed several noteworthy changes. For example, clergymen, who as a group had been relatively highly paid in 1939, fell in the seventh decile in that year. By 1949 this occupation had fallen to the third decile, and by 1959, to the second. Despite a significant increase in church membership and organized religious activity since 1939, the salaries paid to clergymen have lagged far behind the salaries received by most church members. Elevator operators, three groups of operatives, and one group of laborers who were in the fifth decile either in 1939 or 1949, dropped to the second decile in 1959. This drop was probably due mainly to the declining demand for operatives brought about by automation—a point considered more fully in chapter V which shows that operatives in most manufacturing industries had proportionately far smaller gains in earnings than higher paid workers in the same industries.

### **Occupations ranked by dispersion of wages, 1939 to 1959**

The dispersion of wages shows the extent to which wages in given occupations deviate from the average. In some occupations—policemen and firemen, for example—wages are set by law or negotiated by contract. They fluctuate within very narrow ranges, and the difference between the wages of a man at the first quartile of the distribution and one at the third quartile might be quite small, especially when related to the average for the entire distribution. In other occupations, such as salesmen, there may be a wide range between the wages at the first and third quartiles.

Changes in the dispersion of wages for 116 occupations between 1939 and 1959 are summarized in table IV-2. The purpose of this table is to identify the occupations with wide and narrow dispersions, to examine the relationship between the level of dispersion and the level of income, and to ascertain the changes in dispersion that took place during the period under consideration.



Table IV-2.—SELECTED OCCUPATIONS FOR MALE WAGE AND SALARY WORKERS  
RANKED BY DISPERSION OF WAGE OR SALARY INCOME: 1959, 1949, AND 1939

Occupations ranked by dispersion of wage or salary income in 1959	Decile designation of occupations included in each tenth		
	1959	1949	1939
LOWEST TENTH			
Conductors, railroad.....	1	1	1
Baggagemen, express messengers, railway mail clerks.....	1	1	1
Mail carriers.....	1	1	1
Telegraph operators.....	1	1	1
Foremen--trans., commun., and other public utilities.....	1	1	1
Inspectors (n.e.c.).....	1	1	1
Linemen and servicemen, telegraphers, etc.....	1	3	2
Locomotive engineers.....	1	1	1
Machinists, millwrights, and toolmakers.....	1	1	2
Brakemen and switchmen, railroad.....	1	1	3
Operatives--motor vehicles.....	1	1	1
Firemen, fire protection.....	1	1	1
Policemen, sheriffs, and marshals.....	1	1	1
SECOND TENTH			
Chemists.....	2	5	3
Engineers, civil.....	2	3	3
Engineers, electrical.....	2	3	4
Engineers, mechanical.....	2	2	4
Salaried mgrs.--trans., commun., and other public utilities..	2	2	5
Boilermakers.....	2	1	3
Electricians.....	2	3	4
Foremen--manufacturing.....	2	2	1
Locomotive firemen.....	2	2	5
Molders, metal.....	2	2	3
Motormen, railway, mine, factory, etc.....	2	1	1
Welders and flame-cutters.....	2	2	3
Operatives:			
Chemicals.....	2	3	2
Transportation equipment.....	2	1	7
THIRD TENTH			
Postmasters, and miscellaneous government officials.....	3	4	3
Salaried managers--retail trade, exc. eating and drinking....	3	5	2
Compositors and typesetters.....	3	6	5
Printing craftsmen, exc. compositors and typesetters.....	3	6	5
Rollers and roll hands, metal.....	3	1	2
Structural metal workers.....	3	4	7
Operatives:			
Textile.....	3	4	2
Paper.....	3	3	1
Metal industries.....	3	2	3
Machinery.....	3	2	4
FOURTH TENTH			
Designers and draftsmen.....	4	3	2
Pharmacists.....	4	5	1
Teachers (n.e.c.).....	4	6	7
Salaried managers:			
Manufacturing.....	4	7	10
Wholesale trade.....	4	5	10
Insurance agents and brokers.....	4	5	5
Blacksmiths, forgemen, and hammermen.....	4	4	8
Foremen--construction.....	4	5	5
Stationary engineers, cranemen, hoistmen.....	4	2	1
Operatives--rubber.....	4	1	3
Laborers--railroads.....	4	5	4
FIFTH TENTH			
Artists and art teachers.....	5	6	7
Authors, editors, and reporters.....	5	6	8
Salaried managers--finance, insurance, and real estate.....	5	4	7
Shipping and receiving clerks.....	5	3	2
Bakers.....	5	4	3
Mechanics and repairmen, and loom fixers.....	5	4	4
Plasterers and cement finishers.....	5	9	8
Plumbers and pipe fitters.....	5	6	5
Tailors and furriers.....	5	5	5
Stationary firemen.....	5	4	5
Laborers--metal industries.....	5	3	8

Table IV-2.—SELECTED OCCUPATIONS FOR MALE WAGE AND SALARY WORKERS  
RANKED BY DISPERSION OF WAGE OR SALARY INCOME: 1959, 1949, AND 1939—  
Con.

Occupations ranked by dispersion of wage or salary income in 1959	Decile designation of occupations included in each tenth		
	1959	1949	1939
SIXTH TENTH			
College presidents, professors, instructors (n.e.c.).....	6	8	5
Social, welfare, and recreation workers.....	6	7	2
Salaried managers:			
Eating and drinking places.....	6	7	5
Business and repair services.....	6	5	1
Personal services.....	6	6	4
Bookkeepers, accountants, cashiers, ticket agents.....	6	5	3
Stenographers, typists, and secretaries.....	6	5	3
Cabinetmakers and patternmakers.....	6	6	5
Masons, tile setters, and stone cutters.....	6	9	8
Roofers and sheet metal workers.....	6	5	5
Painters, exc. construction and maintenance.....	6	5	5
Sailors and deck hands.....	6	9	5
Operatives:			
Knitting mills.....	6	9	7
Leather, footwear.....	6	6	4
Footwear.....	6	6	4
Apparel.....	6	7	6
Stone.....	6	3	3
Elevator operators.....	6	5	3
Longshoremen and stevedores.....	6	8	9
Laborers:			
Textiles.....	6	5	5
Paper.....	6	5	5
Machinery.....	6	5	5
Chemicals.....	6	7	10
Stone.....	6	6	5
Motor vehicles.....	6	3	5
Transportation equipment, exc. motor vehicle.....	6	5	9
SEVENTH TENTH			
Newsboys.....	7	6	7
Salesmen and sales clerks (n.e.c.).....	7	7	6
Mine operatives and laborers (n.e.c.).....	7	6	7
Guards and watchmen.....	7	5	4
Laborers--telecommunications.....	7	8	8
EIGHTH TENTH			
Clergymen.....	8	9	5
Sports instructors, athletes, entertainers.....	8	9	8
Drivers, bus, taxi, and truck, and deliverymen.....	8	8	9
Operatives--lumber.....	8	10	7
Barbers, beauticians, and manicurists.....	8	8	4
NINTH TENTH			
Real estate agents and brokers.....	9	9	5
Carpenters.....	9	9	10
Painters (construction), paperhangers, glaziers.....	9	9	9
Apprentices.....	9	6	10
Operatives--food.....	9	6	5
Charmen, janitors, and porters.....	9	9	9
Cooks, exc. private household.....	9	9	8
HIGHEST TENTH			
Musicians and music teachers.....	10	10	7
Messengers, exc. express.....	10	10	8
Shoemakers and repairers, exc. factory.....	10	9	8
Attendants, auto service and parking.....	10	10	10
Private household workers.....	10	10	10
Waiters, bartenders, and counter workers.....	10	10	8
Service workers, exc. private household (n.e.c.).....	10	10	8
Fishermen and oystermen.....	10	10	10
Lumbermen, raftsmen, and woodchoppers.....	10	10	8
Laborers:			
Food.....	10	9	10
Transportation, exc. railroad.....	10	9	10
Lumber.....	10	10	7
Construction.....	10	10	10
Trade.....	10	10	10

Note: Dispersion is here measured by  $\frac{Q_3 - Q_1}{\bar{x}}$ , where  $Q_3$  is the third quartile,  $Q_1$  the first quartile, and  $\bar{x}$  is the arithmetic mean.

Source: Appendix table C-6.



As this table shows, when the 116 occupations were ranked by dispersion of wages and salaries, only those at the extremes of the distribution tended to retain the same relative position in 1939, 1949, and 1959. Thirteen occupations were in the lowest decile when ranked by dispersion in 1959; 10 of them were in the same position in 1939 and 1949, and 2 others were in the lowest decile in 1949 but somewhat higher in 1939. The composition of the second decile varied somewhat more than that of the lowest, but it too showed considerable stability. Half of the 14 occupations in the second decile in 1959 were in the same or an adjacent decile in the two preceding censuses.

The occupations in the bottom two deciles ranked by dispersion are, of course, characterized by a narrow spread of incomes relative to the arithmetic mean of the distribution. The maximum spread of wages between the first and third quartiles in the lowest two deciles ranged from one-fourth to somewhat less than one-half of the arithmetic mean. Most of the occupations in this group are relatively highly paid on an annual basis, due primarily to regularity of employment. Unemployment tends to increase the spread of wages within an occupation since workers who are not regularly employed tend to have considerably lower annual incomes than those who work throughout the year. Therefore, occupations paid on an annual basis or which are little affected by unemployment tend to have the narrowest spread of wages. The lowest decile includes several government jobs (mail carriers, firemen, and policemen); railroad employees (locomotive engineers, conductors, brakemen, and baggage-men); and public utility workers (telegraph operators, linemen, and foremen employed by utilities).

The second decile, like the first, includes occupations characterized by regularity of employment. The fact that they are somewhat higher paid than those in the first decile, and therefore have a wider range of incomes, may account for the greater dispersion of wages. Included in the second decile are such relatively high-paid occupations as civil, electrical, and mechanical engineers; chemists; public utility officials; and foremen in manufacturing plants.

With respect to dispersion, occupations in the highest two deciles showed much the same stability as those in the lowest two. At the highest decile the spread of wages between the first and third quartiles was about equal to the arithmetic mean in 1959; all occupations in the top decile in 1959 were also in the top or adjacent decile in 1949, and half of them were also in the top decile in 1939. The same general stability was also found at the ninth decile, although in 1939 several of these occupations had a markedly narrower range of incomes.

Most of the occupations with the widest spread of wages are also among the lowest paid. Among the 14 with the greatest spread of wages, all but 1 were in the bottom two deciles with respect to level of wages. Most of the occupations in the ninth decile, when ranked by dispersion, were also very low paid.

### **Changes in average wages among occupations**

Despite stability in the earnings position of occupations when ranked by income, marked differences in the pattern of wage increases appeared during the

20 years under consideration. During the forties, all occupations made substantial gains in average income, but the greatest relative gains were made by the lowest paid workers. Conversely, during the fifties, it was the higher paid workers who made the greatest relative gains.

Table IV-3 shows that between 1939 and 1949 about half the occupations in the bottom three deciles ranked by median wages and salaries had gains of 150 percent or more in such earnings and that only 2 occupations in this bottom group failed to double their average. In contrast, more than half the occupations in the top three deciles failed to double their average during this period, and only 1 had an increase of more than 150 percent.

Table IV-3.—SELECTED OCCUPATIONS FOR MALE WAGE AND SALARY WORKERS RANKED BY MEDIAN WAGE OR SALARY INCOME IN 1959, BY PERCENT INCREASE IN MEAN INCOME BETWEEN 1939 AND 1949

Occupations ranked by median wage or salary income in 1959	Total	Percent increase in mean wage or salary income between 1939 and 1949			
		Less than 100.0	100.0 to 124.9	125.0 to 149.9	150.0 or more
Total.....	116	33	22	35	26
Lowest tenth.....	13	1	1	7	4
Second tenth.....	20	1	3	5	11
Third tenth.....	5	-	1	2	2
Fourth tenth.....	16	-	3	7	6
Fifth tenth.....	3	-	-	3	-
Sixth tenth.....	9	2	2	3	2
Seventh tenth.....	16	10	2	4	-
Eighth tenth.....	9	1	5	2	1
Ninth tenth.....	12	6	5	1	-
Highest tenth.....	13	12	-	1	-

— Represents zero or rounds to zero.

Source: Appendix table C-6.

The picture for the next decade is quite different, as is shown in table IV-4 which presents the same information for the years between 1949 and 1959. Only 2 out of 38 occupations in the bottom three deciles had increases of 70 percent or more—a rather substantial increase for this period; among the top three deciles, 8 occupations, or about one-fourth of the total, had increases this large. In the bottom three deciles, one-third of the occupations had increases of less than 50 percent; in the top three deciles, only one-seventh of the occupations had increases this small.

The figures for detailed occupations show essentially the same picture noted in the preceding chapter for major occupation groups; that is, greater relative gains for lower paid workers during the war years, and for higher paid workers during the postwar years. This difference reflects in large measure the changes that took place during these two periods in the demand for labor, although institutional factors also undoubtedly played a major role.

During the forties there was a sharp increase in the demand for all types of labor, but the most intense demands were for the lower paid workers. Occu-



Table IV-4.—SELECTED OCCUPATIONS FOR MALE WAGE AND SALARY WORKERS RANKED BY MEDIAN WAGE OR SALARY INCOME IN 1959, BY PERCENT INCREASE IN MEAN INCOME BETWEEN 1949 AND 1959

Occupations ranked by median wage or salary income in 1959	Total	Percent increase in mean wage or salary income between 1949 and 1959				
		Less than 40.0	40.0 to 49.9	50.0 to 59.9	60.0 to 69.9	70.0 or more
Total.....	116	10	12	21	54	19
Lowest tenth.....	13	7	3	1	2	-
Second tenth.....	20	1	2	6	10	1
Third tenth.....	5	-	-	1	3	1
Fourth tenth.....	16	2	1	3	6	4
Fifth tenth.....	3	-	-	-	2	1
Sixth tenth.....	9	-	1	1	5	2
Seventh tenth.....	16	-	-	4	10	2
Eighth tenth.....	9	-	2	-	5	2
Ninth tenth.....	12	-	1	2	6	3
Highest tenth.....	13	-	2	3	5	3

—Represents zero or rounds to zero.

Source: Appendix table C-6.

pations making the greatest relative gains during the forties included many types of service workers—cooks, waiters, barbers, and parking lot attendants—as well as operatives and laborers in manufacturing and nonmanufacturing plants. Establishments employing these workers were forced to raise wages in order to hold their existing labor force and to attract workers from outside the labor market. In some industries, particularly those engaged in manufacturing, unions may have helped to push wages up, but the rise took place also in the service trades, which are not highly unionized.

During the fifties there was a vast change in labor demand conditions. The intense competition that characterized the demand for unskilled and semiskilled labor during the war years had abated; and the result was that wages paid to service workers showed the smallest relative gains. Many classes of operatives and laborers also had relatively small gains. There is some evidence that workers in the highly unionized durable goods industries such as metals, machinery, and motor vehicles, made greater relative gains than those in nondurable goods industries such as textiles and apparel, and footwear and leather.

Craftsmen fared well during both decades, in general, but even in this group of occupations the higher paid workers were much more likely to be among those with higher rates of income gain during the fifties than during the forties. For example, such highly paid craftsmen as foremen, inspectors, linemen, locomotive engineers, firemen, and electricians had relatively small rates of gain during the forties but large rates of gain during the fifties, while the reverse was true for such lower paid craftsmen as tailors, shoemakers, plasterers, and carpenters.

Professional and managerial workers generally had smaller rates of income gain than other occupations in the forties but were much closer to the top in the fifties. College teachers are a case in point. During the forties their average income (in current dollars) increased by only one-third, giving them lower real incomes in 1949 than 10 years earlier. During the fifties their average

income increased by 62 percent, which placed them among the leaders in rate of increase of income. The pattern was much the same for several other occupations—including chemists, engineers, elementary and secondary school teachers, and managerial workers in several different industries.

### **Changes in the dispersion of wages within occupations**

The preceding analysis suggests that the changes in wage levels produced a movement toward a reduction in income concentration—that is, a decrease in dispersion during the forties—and a movement in the opposite direction during the fifties. These tendencies might indeed have been reflected in the overall distribution of wages if there had been no offsetting movement in the distribution of wages within occupations, or in the changing importance of different occupation groups. The fact is that during the fifties there was stability in the overall distribution of wages rather than a movement toward increased concentration. This suggests that there probably was a tendency toward a reduction in concentration within a large proportion of the occupations, although this is not necessarily the case.

Changes in the overall distribution of wages reflect the combined effects of many factors, including changes in the importance of specific occupations as well as changes in the averages and in the spread of wages. Between 1939 and 1949 all these factors exerted pressure in the same direction—toward an equalization of wages. Between 1949 and 1959 the picture was much more diverse. Data showing changes in income concentration within occupations are presented in appendix table C-6.

During the forties there was a decrease in income dispersion within 100 of the 116 occupations included in this study, as shown by changes in the interquartile range. This decline, combined with greater relative gains for the lower paid occupations, produced a marked reduction in concentration in the overall distribution of wages. For the forties, the trends in wage levels and in the distribution of wages within occupations are clear and unambiguous. For the fifties, the picture is not quite so simple.

Between 1949 and 1959, changes in the spread of wages within occupations were much smaller than during the preceding decade, but much more varied. Sixty-nine occupations had increases in the spread of wages, whereas only 47 had decreases or no change. Thus, the pronounced movement in the forties toward a reduction in the wage spread was not continued in the fifties. Indeed, in about three-fifths of the occupations the movement was in the opposite direction. A large proportion of these changes, however, were very slight and had no major impact on the overall income curve.

Important differences in the pattern of wages show up when the figures are examined separately by major occupation groups. In each of the professional occupations, the movement toward equality that started during the forties continued during the fifties. The same pattern was found for half the managerial and clerical worker groups and for craftsmen. In contrast, nearly all service



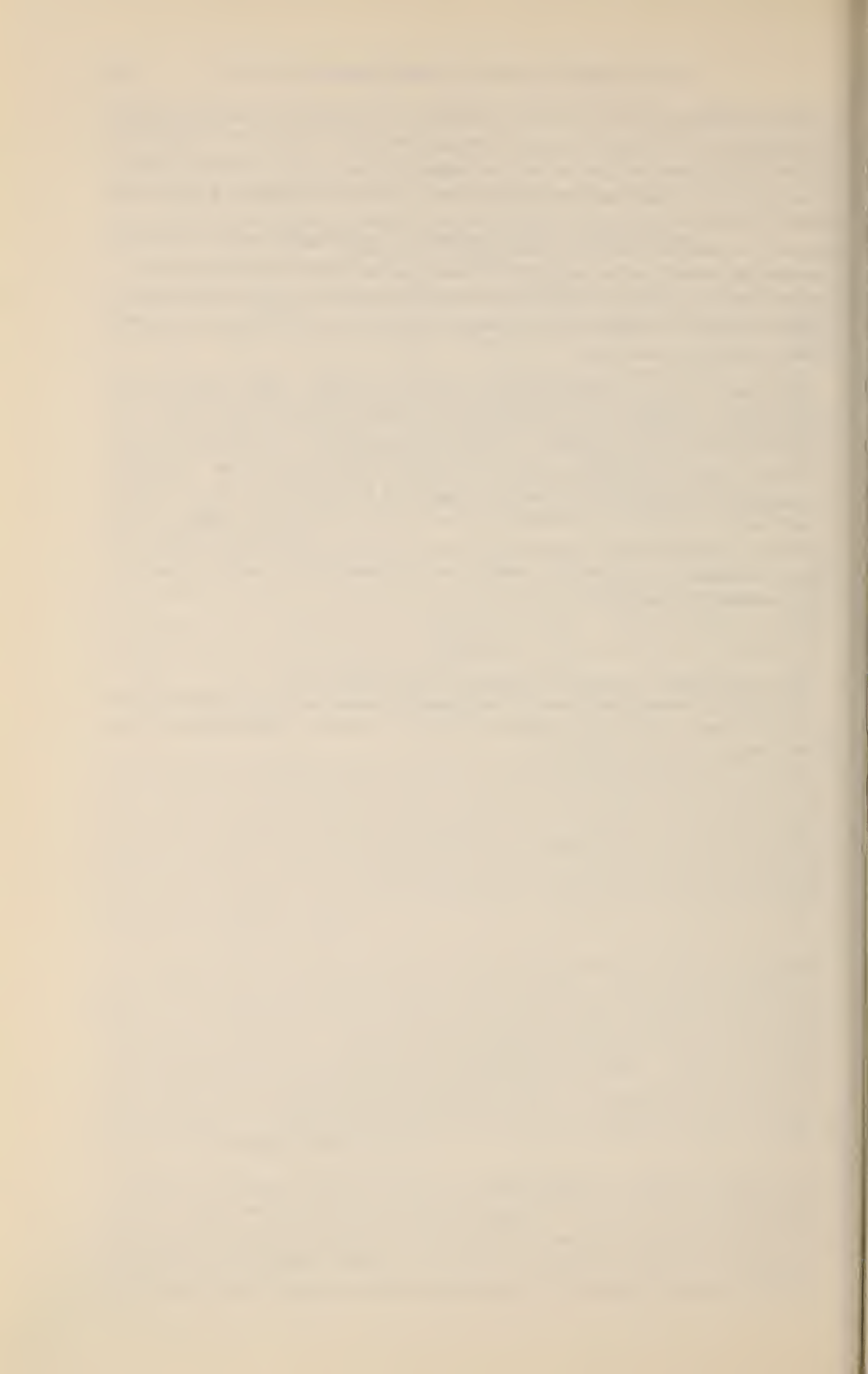
workers and laborers had an increase in income concentration during the fifties, after having had a decrease in concentration during the forties. There are undoubtedly many factors that account for these differences; any single explanation would probably be a gross oversimplification. For some groups of professional workers, the reduction in the wage spread may be due in part to the fact that the demand for their services was greater than the supply. As a result an upward pressure was exerted on the wages of the lower paid workers in professional occupations, thereby causing a reduction in the wage spread. A similar explanation might account for the narrowing of wage differentials for skilled and unskilled workers during the war years.

The widening of wage differentials for virtually all service workers and laborers could reflect the difficulty of maintaining year-round employment in these jobs in the labor market of that period. During full employment, the spread of wages for service workers and laborers may be relatively narrow because the variations in wage rates are small and workers are employed throughout the year. But in a tight labor market, some workers may be employed only part time or have periods of unemployment, whereas others may be employed throughout the year. These variations in employment would tend to increase the spread of annual wages within occupations.

#### NOTES

<sup>1</sup> Herman P. Miller, *Income of the American People*, Wiley, 1955.

<sup>2</sup> The detailed occupations included in each group are shown in appendix C which also contains the basic data for 1959. Comparable figures for 1939 and 1949 appear in *Income of the American People*, appendix C.





## CHAPTER V

# WAGE AND SALARY TRENDS BY SKILLS FOR SELECTED MANUFACTURING INDUSTRIES, 1939 TO 1959

### Introduction

A more refined study of the relative changes in earnings for various types of labor during the past 20 years is described in this chapter. This study involves an examination of the incomes of male laborers, operatives, and all other workers in nine manufacturing industries. The information used was the data available, on a more or less comparable basis, from the past three decennial censuses for the following industries: primary metals; fabricated metals; machinery; transportation equipment; food; textiles and apparel; furniture and lumber products; chemicals and allied products; and stone, clay, and glass. Results of the examination are presented in detail in appendix D, which also contains figures for two nonmanufacturing industries: transportation, communications, and other public utilities; and wholesale and retail trade.

These industries were selected because they were the only ones for which the 1950 and 1960 Censuses made data available showing average income or earnings for three broad occupation groups: laborers, operatives, and all other workers. For many of these industries, data on wages and salaries from the 1940 Census were also available; thus a basis was provided for measuring change over a 20-year period. The industries examined included more than half of all male workers in the nonagricultural labor force in 1960, and about four-fifths of all males in manufacturing industries.

For each of the years shown, the census data present figures on the distribution of all workers in the experienced labor force, of laborers not elsewhere classified (n.e.c.), and of operatives (n.e.c.), by industry and by income or earnings. From these data it was possible to estimate, for each industry, the income or earnings distribution of laborers, operatives, and all other workers. The last-mentioned category, all other workers, consists largely of higher paid craftsmen and white-collar and managerial workers. Although these data are subject to important limitations (discussed below in greater detail), they do show changes in earnings differentials, by skill, for a major segment of the American economy.

The industries selected were those having 500 or more operatives (n.e.c.) and 500 or more laborers (n.e.c.) with \$1 or more of total money income in

1950. This cutoff point was used because medians were not computed for 1950 Census data where the base was less than 500. Since the main purpose of the analysis was to measure changes over time, those industries for which 1950 Census estimates were not available were excluded.

The distribution of "other workers" by income size was derived by inflating the number of operatives (n.e.c.) and laborers (n.e.c.) in each industry to include *all* operatives and *all* laborers in the industry. This adjustment was required because many operatives have specific job titles—for example, apprentice, assembler, truckdriver—and are not included in the category, operatives (n.e.c.); in some industries a similar problem exists for laborers. The adjustment procedure involved the following steps:

1. The number of employed operatives and laborers in each industry was estimated for each State from census data showing the occupational distribution of employed persons, by industry. In most cases the published figure was used directly; in some cases, however, it was necessary to make adjustments because of changes in the industry definition, or because of changes in the amount of detail tabulated for the industry.

2. The number of employed persons by occupation within each industry was adjusted to represent the experienced labor force with income. This step—which involved adding an estimated number of unemployed persons to the number employed in the occupation, and subtracting an estimated number of persons without income—was required because the overall income distribution for the industry included the experienced labor force within income. The adjustment was made by assuming that the unemployed and persons without income in each industry had the same occupational distribution as those who were employed.

3. The estimated number of operatives and laborers in the experienced civilian labor force with income was distributed by income levels, using the tabulated income distributions for operatives (n.e.c.) and laborers (n.e.c.), respectively. In effect, this adjustment assumed that operatives and laborers in occupations with specific job titles had the same income distribution as operatives (n.e.c.) and laborers (n.e.c.).

4. The income distributions obtained in (3) above were subtracted from the total in the experienced civilian labor force, leaving "other workers" in the experienced civilian labor force.

In view of the nature of the underlying data and the adjustments required, there are several important limitations associated with these estimates. In the first place, they are based on different income concepts: In 1939, wages and salaries; in 1949, total money income; and in 1959, total money earnings. However, this difference in income concept is not likely to introduce any serious distortion in the data, since the great majority of workers in the industries examined had wages and salaries and very little other income.



Another limitation of the data is that the residual category, "other workers," does not distinguish between craftsmen and other occupations. For this reason the data do not show differential income gains of unskilled, semiskilled, and skilled workers within each industry, but rather the gains of unskilled, semi-skilled, and "higher paid" workers, since about three-fourths of the "other workers" category in most industries is composed of professional and managerial workers and craftsmen.

The industry groups are rather broad. Some of the apparent changes in occupational wage differentials may be more the result of changes in the relative importance of specific industries within a given group than of changes in the annual wages for the occupations considered. Also, some minor changes were made in the definition of certain industries between 1950 and 1960. Although this factor, in general, probably produced only minor variations in the results, it may have been of greater importance in selected areas.

### Primary metals

Table V-1 shows the composition and regional distribution of a major American industry which in 1960 had over 1 million male workers. The industry consists of three separate components: blast furnaces and steel mills, which account for about one-half of the total employment; other primary iron and steel works, largely foundries, which account for one-fourth of the employment; and primary nonferrous metals, largely aluminum plants, which also account for about one-fourth of the employment. The iron and steel industry is highly concentrated in the Northeast and North Central States, and within these States it can be further pinpointed to the following areas: Pittsburgh-Youngstown, Cleveland-Detroit, and Chicago.

Table V-1.—MALES IN PRIMARY METAL INDUSTRIES, BY REGIONS: 1960  
[In thousands]

Industry	United States	North-east	North Central	South	West
Total experienced civilian labor force....	1,197	429	478	194	96
Blast furnaces, steel works, and rolling and finishing mills.....	618	243	240	97	38
Other primary iron and steel industries.....	295	82	149	46	18
Primary nonferrous industries.....	284	104	89	51	40

Source: 1960 Census of Population, Vol. I, *Characteristics of the Population*, Part 1, U.S. Summary, table 259.

Table V-2 shows changes in median income between 1949 and 1959 for three groups of male workers: laborers, operatives, and "other workers." Similar figures for 1939 are not available for this industry. The States shown are those with 500 or more male laborers (n.e.c.) and 500 or more male operatives (n.e.c.) in this industry in 1950. Of the 28 States that qualified for inclusion on this basis, in only 1 (Illinois) did the relative income gains of laborers exceed those of the other two groups shown; 13 of the States showed a uniform pattern of laborers with the smallest relative gains, and "other workers" with the largest relative

Table V-2.—PERCENT INCREASE IN MEDIAN INCOME FOR MALE LABORERS, OPERATIVES, AND “OTHER WORKERS” IN PRIMARY METAL INDUSTRIES, FOR SELECTED STATES: 1949 TO 1959

State	Percent increase, 1949 to 1959		
	Laborers	Operatives	Other workers
Northeast:			
Massachusetts.....	51	60	94
Connecticut.....	86	93	88
New York.....	55	66	73
New Jersey.....	74	74	82
Pennsylvania.....	64	67	74
North Central:			
Ohio.....	70	74	77
Indiana.....	61	72	66
Illinois.....	81	73	80
Michigan.....	58	59	67
Wisconsin.....	70	71	74
Minnesota.....	61	70	73
Iowa.....	81	84	101
Missouri.....	83	81	83
South:			
Maryland.....	55	60	65
Virginia.....	87	98	104
West Virginia.....	85	90	88
Georgia.....	65	64	81
Kentucky.....	64	64	71
Tennessee.....	97	112	104
Alabama.....	76	91	85
Oklahoma.....	40	50	51
Texas.....	80	95	73
West:			
Montana.....	14	20	32
Colorado.....	56	64	60
Arizona.....	40	59	71
Utah.....	59	57	67
Washington.....	75	81	79
California.....	71	68	75

Source: Appendix table D-1.

gains. This pattern prevailed in the major steel-producing States—Pennsylvania, Ohio, and Michigan. In 7 additional States, the relative gains for laborers were below those for the other two groups shown, but operatives made greater gains than “other workers.” In general, the figures for the primary metals industries appear to be consistent with the national trend referred to earlier, toward a widening of wage differentials.

Fabricated metals

This industry, which in 1960 was about the size of the primary metals industry, was also similar in geographic distribution of workers. As is seen in table V-3, about one-third were employed in the Northeastern States, and a somewhat larger proportion in the North Central States. Together these two regions accounted for about two-thirds of the industry’s entire male labor force. Employment within these regions—like employment in the primary metals industry—centers largely in the Pittsburgh-Youngstown, Cleveland-Detroit, and Chicago areas.

The fabricated metals industry is divided into several major components, two of which account for about nine-tenths of the employment. The single most important category for which separate census data are shown consists of miscellaneous fabricated metal products; these include everything from dog chains to



drums, and from garbage pails to guided missiles. The category next in importance—fabricated structural metal products—includes a miscellany of pre-fabricated structures ranging from bridge sections to bins; sheet metal products of various types; metal windows, doors, radiators, and many other items.

Table V-3.—MALES IN FABRICATED METAL INDUSTRIES, BY REGIONS: 1960  
[In thousands]

Industry	United States	North-east	North Central	South	West
Total experienced civilian labor force....	1,128	331	424	172	201
Cutlery, hand tools and other hardware.....	95	40	42	7	6
Fabricated structural metal products.....	328	97	113	71	47
Miscellaneous fabricated metal products.....	699	192	267	93	147
Not specified metal industries.....	6	2	2	1	1

Source: 1960 Census of Population, Vol. I, *Characteristics of the Population*, Part 1, U.S. Summary, table 259.

Under the criteria previously described, table V-4 shows a total of 19 States to be qualified as having sufficiently large employment in the production of fabricated metal products, with laborers in only 3 of these States making greater relative gains in median income than operatives and "other workers." In 7 States, laborers made the smallest relative gains, followed in turn by operatives, who made somewhat larger gains, and by "other workers," who made the greatest gains. Included in these 7 States were 4—Pennsylvania, Ohio, Indiana, and Michigan—which accounted for a large proportion of the employment within the industry.

Table V-4.—PERCENT INCREASE IN MEDIAN INCOME FOR MALE LABORERS, OPERATIVES, AND "OTHER WORKERS" IN FABRICATED METAL INDUSTRIES, FOR SELECTED STATES: 1949 TO 1959

State	Percent increase, 1949 to 1959		
	Laborers	Operatives	Other workers
Northeast:			
Massachusetts.....	65	66	75
Connecticut.....	79	75	81
New York.....	67	64	77
New Jersey.....	75	77	79
Pennsylvania.....	64	68	76
North Central:			
Ohio.....	69	70	72
Indiana.....	62	63	71
Illinois.....	71	71	78
Michigan.....	53	58	70
Wisconsin.....	69	67	70
Minnesota.....	70	74	73
Missouri.....	90	89	86
South:			
Maryland.....	87	81	85
West Virginia.....	62	75	64
Kentucky.....	71	71	73
Tennessee.....	69	84	72
Alabama.....	89	84	111
Texas.....	65	56	63
West:			
California.....	72	83	89

Source: Appendix table D-1.

### Primary and fabricated metals

The 1940 Census shows income figures for the metal industry as a whole. No separate data were published for the primary and fabricated components. It is possible, however, by combining the figures for these two categories in each of the past two censuses, to trace occupational differentials in earnings for the entire metal-producing and fabricating industry over a 20-year period. The data are summarized in table V-5.

Half of the States for which information is presented—and they include most of the large producers—show a similar pattern of widening differentials in the forties and narrowing differentials in the fifties. The figures for Pennsylvania, for example, show that between 1939 and 1949 laborers made greater relative gains than operatives, their incomes increasing by 55 percent as compared with a 40-percent increase for operatives. Similar figures for “other workers” are not available. During the following decade, however, laborers in the metal industries in Pennsylvania had an increase of 63 percent, compared with 66 percent for operatives; and “other workers,” who are higher paid than the other two groups, had an increase of 75 percent—the greatest gain of all.

Since this same general pattern appears in such other major metal-producing States as Indiana, Michigan, Alabama, New York, and Massachusetts, it seems

Table V-5.—PERCENT INCREASE IN MEDIAN INCOME FOR MALE LABORERS, OPERATIVES, AND “OTHER WORKERS” IN PRIMARY AND FABRICATED METAL INDUSTRIES, FOR SELECTED STATES: 1949 TO 1959, AND 1939 TO 1949

State	Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	Laborers	Operatives	Other workers	Laborers	Operatives
<b>Northeast:</b>					
Massachusetts.....	61	66	81	158	136
Connecticut.....	83	82	83	139	147
New York.....	57	65	75	173	155
New Jersey.....	74	75	81	141	151
Pennsylvania.....	63	66	75	155	140
<b>North Central:</b>					
Ohio.....	70	72	76	139	160
Indiana.....	60	68	68	134	127
Illinois.....	77	72	80	164	161
Michigan.....	56	58	69	175	161
Wisconsin.....	69	69	72	138	138
Minnesota.....	63	70	74	169	128
Iowa.....	68	78	82	158	140
Missouri.....	85	85	86	166	147
<b>South:</b>					
Maryland.....	58	66	72	127	138
Virginia.....	87	68	76	169	182
West Virginia.....	81	87	81	139	139
Georgia.....	72	54	82	165	184
Kentucky.....	68	68	72	197	138
Tennessee.....	83	90	86	165	157
Alabama.....	75	86	91	190	161
Oklahoma.....	40	59	60	205	165
Texas.....	74	76	67	198	186
<b>West:</b>					
Montana.....	13	20	35	132	125
Colorado.....	59	80	83	133	111
Arizona.....	46	56	84	176	156
Utah.....	59	60	64	131	132
Washington.....	72	77	76	102	128
California.....	72	78	89	128	129

Source: Appendix table D-1.



clear that the trend toward the narrowing of wage differentials which prevailed in this industry during the forties was not only stopped, but was actually reversed during the fifties.

### Machinery manufacturing

Another major industry in the United States is the manufacture of machinery, which in 1960 employed about 2½ million men. The industry's most important separately identifiable component—the manufacture of electrical machinery—employed 1 million men; an additional ¼ million are equally divided between the farm machinery and the office and computing machine industries; and the rest are thrown together in a miscellaneous category. As is seen in table V-6, the industry is largely concentrated in the Northeastern and North Central States which account for about four-fifths of the total employment.

Table V-6.—MALES IN MACHINERY MANUFACTURING INDUSTRIES,  
BY REGIONS: 1960

[In thousands]

Industry	United States	North-east	North Central	South	West
Total experienced civilian labor force....	2,416	851	1,053	274	238
Machinery, exc. electrical.....	1,405	437	695	154	119
Farm machinery and equipment.....	125	8	98	14	5
Office, computing, and accounting machines..	130	65	43	9	13
Miscellaneous machinery.....	1,150	364	554	131	101
Electrical machinery, equipment, & supplies...	1,011	414	358	120	119

Source: 1960 Census of Population, Vol. I, Characteristics of the Population, Part 1. U.S. Summary, table 259.

The trend of wage differentials for the machinery manufacturing industries is somewhat similar to that previously noted for the metal industries. In 9 of the 16 States for which data are shown in table V-7, there was a narrowing

Table V-7.—PERCENT INCREASE IN MEDIAN INCOME FOR MALE LABORERS, OPERATIVES, AND "OTHER WORKERS" IN MACHINERY MANUFACTURING INDUSTRIES, FOR SELECTED STATES: 1949 TO 1959, AND 1939 TO 1949

State	Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	Laborers	Operatives	Other workers	Laborers	Operatives
Northeast:					
Massachusetts.....	50	58	80	143	143
Connecticut.....	75	78	84	132	140
New York.....	65	58	79	157	153
New Jersey.....	72	76	82	134	139
Pennsylvania.....	62	61	74	153	162
North Central:					
Ohio.....	73	72	76	140	158
Indiana.....	74	72	73	153	139
Illinois.....	66	67	73	160	168
Michigan.....	59	73	69	173	159
Wisconsin.....	67	71	73	152	136
Minnesota.....	77	68	68	153	145
Iowa.....	68	59	72	174	169
Missouri.....	63	71	71	177	160
South:					
Kentucky.....	98	75	86	166	177
Texas.....	65	65	70	152	125
West:					
California.....	60	75	85	144	133

Source: Appendix table D-1.

of differentials between operatives and laborers between 1939 and 1949. During the following decade the narrowing of differentials took place in only 7 States; but, more significantly, in all but 5 of the States for which data are shown, "other workers" made greater relative gains than the lower paid operatives and laborers. Thus the pattern of change for the machinery manufacturing industries supports the hypothesis that there was a widening of income differentials between skilled and unskilled workers during the past decade.

Transportation equipment manufacturing

The manufacture of transportation equipment—another leading American industry—employed 1,700,000 men in 1960. Its two main components are the automobile industry, with about 800,000 workers; and the aircraft industry, with nearly 600,000. Table V-8 shows that almost half of the employees were in the 8 North Central States, and half were distributed more or less equally among 8 States in the other 3 regions.

Table V-8.—MALES IN TRANSPORTATION EQUIPMENT MANUFACTURING INDUSTRIES, BY REGIONS: 1960  
[In thousands]

Industry	United States	North-east	North Central	South	West
Total experienced civilian labor force....	1,702	352	803	232	315
Motor vehicles and motor vehicle equipment....	800	95	620	50	35
Aircraft and parts.....	573	140	131	87	215
Ship and boat building and repairing.....	247	93	17	82	55
Railroad and misc. transportation equipment...	82	24	35	13	10

Source: 1960 Census of Population, Vol. I, Characteristics of the Population, Part 1, U.S. Summary, table 259.

Table V-9.—PERCENT INCREASE IN MEDIAN INCOME FOR MALE LABORERS, OPERATIVES, AND "OTHER WORKERS" IN TRANSPORTATION EQUIPMENT MANUFACTURING INDUSTRIES, FOR SELECTED STATES: 1949 TO 1959, AND 1939 TO 1949

State	Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	Laborers	Operatives	Other workers	Laborers	Operatives
Northeast:					
Massachusetts.....	66	72	79	148	142
New York.....	67	65	83	168	165
New Jersey.....	69	65	47	147	149
Pennsylvania.....	71	64	77	175	163
North Central:					
Ohio.....	74	73	84	149	146
Indiana.....	46	54	70	229	163
Illinois.....	60	61	77	202	183
Michigan.....	63	61	81	142	139
Wisconsin.....	81	75	78	125	121
Minnesota.....	(NA)	59	91	157	123
Missouri.....	81	53	75	166	157
South:					
Virginia.....	70	64	73	159	144
Alabama.....	89	74	93	204	231
Texas.....	50	77	87	273	176
West:					
Washington.....	76	58	68	127	138
California.....	63	74	82	158	176

NA Not available.

Source: Appendix table D-1.



In 12 of the 16 States for which data are shown in table V-9, laborers made greater relative gains than operatives between 1939 and 1949; and this pattern prevailed in 10 of the States during 1949 to 1959. In this respect, therefore, the pattern of income differences for the transportation equipment manufacturing industries differs from that for the metal-producing and machinery manufacturing industries.

However, when the analysis is extended to the higher paid "other workers," the reduction of differentials between skilled and unskilled workers becomes apparent. In 12 of the 16 States, "other workers" made greater relative gains than either laborers or operatives, providing additional confirmation that higher paid workers tended to receive greater relative income gains during this decade.

### Food processing

Geographically, the food processing industry is much more dispersed than any of the other industries so far examined. This may be seen in table V-10. Of the 1,500,000 men employed in this industry in 1960, about one-third were in the North Central States, about one-fourth in the South, and an equal proportion in the Northeast. The North and South together accounted for about 85 percent of the total.

Although food processing consists of about seven sectors, it is unlike the industries previously described in that it has no dominant sector. The largest sectors, in terms of the number of men employed, include dairy products, bakery products, and meat products, each with about 250,000 workers. Next is the beverages sector, with about 200,000 workers, followed in turn by grain mill products and canning and preserving, with about 130,000 workers each.

The pattern of change in wage differentials along regional lines, shown in table V-11, varied more for the food processing industry than for any of the others previously examined. In the 20 States of the South and the West a familiar pattern is seen—a narrowing of wage differentials between 1939 and 1949, and a widening between 1949 and 1959. In these regions, all States except Mississippi had laborers making greater relative gains than operatives

Table V-10.—MALES IN FOOD PROCESSING INDUSTRIES, BY REGIONS: 1960  
[In thousands]

Industry	United States	North-east	North Central	South	West
Total experienced civilian labor force....	1,462	356	504	380	222
Meat products.....	254	36	126	66	26
Dairy products.....	280	75	102	64	39
Canning and preserving.....	138	30	27	35	46
Grain-mill products.....	132	15	65	38	14
Bakery products.....	275	94	76	66	39
Confectionary and related products.....	40	19	12	6	3
Beverage industries.....	196	53	61	59	23
Misc. food preparations and kindred products..	129	28	30	42	29
Not specified food industries.....	18	6	5	4	3

Source: 1960 Census of Population, Vol. I, Characteristics of the Population, Part 1, U.S. Summary, table 259.

between 1939 and 1949. During the next decade they made smaller relative gains than operatives in all but 2 States, and in 13 States they made the smallest relative gains, followed in turn by operatives and "other workers."

The pattern in the Northeastern States was similar to that in the South and West but not quite as striking. Four of the States showed a narrowing of wage differentials between 1939 and 1949. Between 1949 and 1959, the widening of wage differentials in most of the Northeastern States was similar to that in the South and West.

In the North Central States, the pattern of wage movements in both periods was basically different from the patterns for the South and West. Between 1939 and 1949 there was a *widening* of differentials in 5 of the 11 States for which data are shown; in 7 States, the relative gains made by laborers between 1949 and 1959 equalled or exceeded the gains made by operatives and "other workers." The tendency toward a widening of wage differentials—so typical of other industries and other regions—does not appear in the food processing industry in the North Central States.

Table V-11.—PERCENT INCREASE IN MEDIAN INCOME FOR MALE LABORERS, OPERATIVES, AND "OTHER WORKERS" IN FOOD PROCESSING INDUSTRIES, FOR SELECTED STATES: 1949 TO 1959, AND 1939 TO 1949

State	Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	Laborers	Operatives	Other workers	Laborers	Operatives
Northeast:					
Maine.....	113	90	63	127	131
Massachusetts.....	60	70	67	126	124
New York.....	65	71	73	165	128
New Jersey.....	57	77	73	154	144
Pennsylvania.....	57	66	69	138	131
North Central:					
Ohio.....	63	71	66	128	138
Indiana.....	67	65	64	183	138
Illinois.....	75	74	76	141	146
Michigan.....	38	62	63	184	149
Wisconsin.....	68	59	67	155	133
Minnesota.....	67	65	70	128	127
Iowa.....	83	81	69	136	137
Missouri.....	66	77	71	170	139
South Dakota.....	85	76	48	132	148
Nebraska.....	86	83	74	148	148
Kansas.....	66	75	73	157	141
South:					
Delaware.....	80	50	63	146	92
Maryland.....	50	55	71	166	116
Virginia.....	49	55	61	233	152
West Virginia.....	31	41	92	166	130
North Carolina.....	33	43	59	182	148
South Carolina.....	49	53	61	172	155
Georgia.....	51	58	69	210	143
Florida.....	53	64	61	219	175
Kentucky.....	59	74	68	210	166
Tennessee.....	66	65	69	175	165
Alabama.....	43	48	70	199	143
Mississippi.....	42	47	68	184	188
Arkansas.....	36	55	56	218	155
Louisiana.....	52	64	72	265	181
Oklahoma.....	48	53	80	154	127
Texas.....	53	56	60	174	150
West:					
Colorado.....	63	74	71	187	135
Washington.....	28	68	65	222	160
Oregon.....	18	55	67	225	149
California.....	46	73	71	195	130

Source: Appendix table D-1.



## Textile and apparel manufacturing

This industry, for which data are given in table V-12, is almost equally divided between the Northeastern and Southern States, and employed nearly 900,000 men in 1960. The two major sectors are the manufacture of yarn, thread, and fabric, largely concentrated in the South and accounting for nearly half of the total employment; and the manufacture of apparel and accessories, centered in the Northeast.

Although there was some narrowing of wage differentials in this industry between 1939 and 1949, table V-13 shows that it was not nearly as pronounced as that previously described for the metal, machinery, and transportation equipment industries. Seven of the 17 States for which data are presented for textile and apparel manufacturing had a widening of differentials between 1939 and 1949, and several of the other States had only small changes. Between 1949 and 1959 the industry followed the general pattern of widening differentials. In only 3 States did the relative gains for laborers exceed those for operatives and "other workers"; in about half the States, laborers made the smallest relative gains, followed in turn by operatives and "other workers."

Table V-12.—MALES IN TEXTILE AND APPAREL MANUFACTURING INDUSTRIES,  
BY REGIONS: 1960  
[In thousands]

Industry	United States	North-east	North Central	South	West
Total experienced civilian labor force....	873	376	60	412	25
Textile mill products.....	558	181	21	349	7
Yarn, thread, and fabric mills.....	378	95	6	274	3
All other.....	180	86	15	75	4
Apparel & other fabricated textile products...	315	195	39	63	18
Apparel and accessories.....	265	173	28	50	14
Miscellaneous fabricated textile products...	50	22	11	13	4

Source: 1960 Census of Population, Vol. I, Characteristics of the Population, Part 1, U.S. Summary, table 259.

Table V-13.—PERCENT INCREASE IN MEDIAN INCOME FOR MALE LABORERS, OPERATIVES, AND "OTHER WORKERS" IN TEXTILE AND APPAREL MANUFACTURING INDUSTRIES, FOR SELECTED STATES: 1949 TO 1959, AND 1939 TO 1949

State	Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	Laborers	Operatives	Other workers	Laborers	Operatives
Northeast:					
Maine.....	38	44	34	220	215
New Hampshire.....	42	54	45	214	184
Massachusetts.....	41	57	60	188	166
Rhode Island.....	43	56	53	203	168
Connecticut.....	31	50	58	221	197
New York.....	45	51	66	190	219
New Jersey.....	48	67	67	184	220
Pennsylvania.....	36	42	59	191	188
North Central:					
Ohio.....	60	56	61	158	216
Illinois.....	48	55	65	171	174
South:					
Virginia.....	45	43	52	216	222
North Carolina.....	45	47	53	193	194
South Carolina.....	41	46	46	214	207
Georgia.....	44	47	50	210	199
Tennessee.....	33	36	45	188	185
Alabama.....	37	37	42	238	218
Texas.....	31	50	58	183	188

Source: Appendix table D-1.

Furniture and lumber and wood products

This industry employed almost 900,000 men in 1960. Its major sectors include sawmills, planing mills, and millwork; miscellaneous wood products; furniture and fixtures. (Logging was included in 1950 and 1960, but since it was not included in 1940, it was omitted in this study for the later years as well, in order to improve the comparability of the data.)

About 40 percent of the employment in furniture, lumber, and wood products is centered in the South; another one-fourth in the West; and the remaining one-third is almost equally divided between the Northeastern and North Central States. Most of the employment in the South and West is in sawmills, planing mills, and millwork, whereas in the North it is concentrated largely in the manufacture of furniture and fixtures. (See table V-14.)

Table V-14.—MALES IN FURNITURE AND LUMBER AND WOOD PRODUCTS INDUSTRIES, BY REGIONS: 1960  
[In thousands]

Industry	United States	North-east	North Central	South	West
Total experienced civilian labor force....	852	133	165	355	199
Lumber and wood products, exc. logging.....	523	54	75	232	162
Sawmills, planing mills, and mill work.....	432	31	54	197	150
Miscellaneous wood products.....	91	23	21	35	12
Furniture and fixtures.....	329	79	90	123	37

Source: 1960 Census of Population, Vol. I, Characteristics of the Population, Part 1, U.S. Summary, table 259.

The pattern of wage changes in this industry was quite varied. Table V-15 shows that in the South between 1939 and 1949 there was a narrowing of wage differentials in every one of the 15 States examined; during the following decade the widening of differentials—so typical in the durable goods industries—took place in all but 2 of the States. It was mostly the operatives, rather than the higher paid “other workers,” who made the greatest relative gains. This difference may reflect the fact that there are relatively few skilled workers in this industry, and that in the “other workers” groups, owners of small sawmills or of similar establishments may predominate.

The West, which is the other major center of employment in this industry, showed very little narrowing of wage differentials between 1939 and 1949. During this decade, in 4 of the 6 States for which data are shown, operatives made greater relative gains than laborers. Between 1949 and 1959 there was a widening of differentials in about half of these States.

In the Northern States, more men are employed in the manufacture of furniture and fixtures than in lumbering and the manufacture of wood products. This region showed a tendency toward the narrowing of wage differentials between 1939 and 1949. In 11 of the 15 States for which data are shown, laborers made greater relative gains than operatives. The Northeastern States exhibited a distinct tendency toward a widening of differentials during 1949 and 1959. In the North Central States, however, the pattern was quite mixed.



Table V-15.—PERCENT INCREASE IN MEDIAN INCOME FOR MALE LABORERS, OPERATIVES, AND "OTHER WORKERS" IN FURNITURE AND LUMBER AND WOOD PRODUCTS INDUSTRIES, FOR SELECTED STATES: 1949 TO 1959, AND 1939 TO 1949

State	Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	Laborers	Operatives	Other workers	Laborers	Operatives
<b>Northeast:</b>					
Maine.....	34	50	48	196	151
New Hampshire.....	67	65	64	133	147
Vermont.....	42	51	53	153	149
Massachusetts.....	47	61	56	154	158
New York.....	44	46	59	183	163
New Jersey.....	41	56	68	171	151
Pennsylvania.....	51	69	57	161	160
<b>North Central:</b>					
Ohio.....	68	64	60	146	154
Indiana.....	77	65	60	172	170
Illinois.....	63	61	63	192	180
Michigan.....	44	56	56	175	166
Wisconsin.....	48	51	52	154	152
Minnesota.....	11	54	65	265	140
Iowa.....	51	50	55	171	191
Missouri.....	35	74	75	185	103
<b>South:</b>					
Maryland.....	53	65	62	161	142
Virginia.....	55	82	52	153	114
West Virginia.....	30	44	27	182	115
North Carolina.....	48	70	47	147	129
South Carolina.....	50	78	43	156	126
Georgia.....	59	86	84	174	120
Florida.....	54	71	74	173	142
Kentucky.....	38	64	42	185	134
Tennessee.....	40	65	46	188	130
Alabama.....	59	70	70	160	131
Mississippi.....	57	75	86	143	126
Arkansas.....	65	77	50	162	141
Louisiana.....	56	55	77	167	151
Oklahoma.....	82	78	55	198	142
Texas.....	46	71	63	171	140
<b>West:</b>					
Montana.....	46	61	67	139	172
Idaho.....	59	56	66	174	176
Arizona.....	64	76	65	159	197
Washington.....	57	57	52	160	156
Oregon.....	63	63	60	170	171
California.....	59	67	63	164	143

Source: Appendix table D-1.

## Chemicals and allied products

Most of the 700,000 men in this industry in 1960 were engaged in the manufacture of specific chemicals and chemical products not separately identifiable in census data. About three-fourths of the workers were employed in the miscellaneous chemicals category; the remaining one-fourth made synthetic fibers, drugs and medicines, and paints and varnishes. The industry is highly concentrated along the Atlantic Seaboard with slightly more than one-third of the total employment in the Southern States and a somewhat smaller proportion in the Northeast. These two regions, taken together, accounted for about two-thirds of the employment in 1960. (See table V-16.)

Since earnings data for 1939 are not available for this industry, changes in differentials for occupational skills can be examined for the past decade only. During this period the pattern of wage variation for this industry was quite different from that for the durable goods industries. In only 3 of the 27 States for which data are shown in table V-17 were the smallest relative gains made by laborers, followed in turn by operatives and "other workers." In about one-fifth of the States, laborers made greater relative gains than either operatives

or “other workers.” Possibly because of its heterogeneous nature, the chemicals and allied products industry does not show the distinct pattern of wage movements typical of many of the other industries.

Table V-16.—MALES IN CHEMICALS AND ALLIED PRODUCTS INDUSTRIES,  
BY REGIONS: 1960  
[In thousands]

Industry	United States	North-east	North Central	South	West
Total experienced civilian labor force....	717	215	186	257	59
Synthetic fibers.....	45	6	2	37	-
Drugs and medicines.....	71	36	24	7	4
Paints, varnishes, and related products.....	58	18	23	9	8
Miscellaneous chemicals and allied products...	543	155	137	204	47

Source: 1960 Census of Population, Vol. I, Characteristics of the Population, Part 1, U.S. Summary, table 259.

Table V-17.—PERCENT INCREASE IN MEDIAN INCOME FOR MALE LABORERS,  
OPERATIVES, AND “OTHER WORKERS” IN CHEMICALS AND ALLIED PRODUCTS  
INDUSTRIES, FOR SELECTED STATES: 1949 TO 1959

State	Percent increase, 1949 to 1959		
	Laborers	Operatives	Other workers
Northeast:			
Massachusetts.....	85	76	75
Connecticut.....	92	98	93
New York.....	69	72	72
New Jersey.....	66	74	74
Pennsylvania.....	69	75	70
North Central:			
Ohio.....	82	76	75
Indiana.....	57	75	76
Illinois.....	72	68	74
Michigan.....	71	72	68
Iowa.....	42	69	79
Missouri.....	73	75	74
Kansas.....	96	72	69
South:			
Maryland.....	63	80	83
Virginia.....	70	65	69
West Virginia.....	64	80	65
North Carolina.....	38	82	73
South Carolina.....	86	238	142
Georgia.....	53	155	85
Florida.....	74	92	65
Kentucky.....	95	102	84
Tennessee.....	129	82	78
Alabama.....	91	114	65
Mississippi.....	85	109	91
Arkansas.....	109	160	103
Louisiana.....	104	103	80
Texas.....	106	108	74
West:			
California.....	59	68	69

Source: Appendix table D-1.

Stone, clay, and glass products

This industry, the smallest of the manufacturing industries for which the census shows income data by skill, employed about 500,000 men in 1960. The largest single sector is the manufacture of cement and concrete, with nearly 200,000 workers. Each of the three other sectors had about 100,000 workers. The Northeast, North Central, and South shared more or less equally in the employment; the West had only about 10 percent of the total. (See table V-18.)



Table V-18.—MALES IN STONE, CLAY, AND GLASS PRODUCTS INDUSTRIES, BY REGIONS: 1960  
[In thousands]

Industry	United States	North-east	North Central	South	West
Total experienced civilian labor force....	532	144	183	139	66
Glass and glass products.....	131	45	44	33	9
Cement, & concrete, gypsum, & plaster prod....	181	34	57	56	34
Structural clay & pottery & related products...	108	24	41	30	13
Misc. nonmetallic mineral & stone products....	112	41	41	20	10

Source: 1960 Census of Population, Vol. I, Characteristics of the Population, Part 1, U.S. Summary, table 259.

The pattern of change of wage differentials in this industry was somewhat similar to that of the furniture and lumber and wood products industry. In all but 2 of the States for which data are shown in table V-19 there was a narrowing of wage differentials between 1939 and 1949. However, unlike the situation that prevailed in the durable goods industry, this process continued during the fifties. Between 1949 and 1959, laborers in well over half the States made greater relative gains in wages than either operatives or "other workers."

Table V-19.—PERCENT INCREASE IN MEDIAN INCOME FOR MALE LABORERS, OPERATIVES, AND "OTHER WORKERS" IN STONE, CLAY, AND GLASS PRODUCTS INDUSTRIES, FOR SELECTED STATES: 1949 TO 1959, AND 1939 TO 1949

State	Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	Laborers	Operatives	Other workers	Laborers	Operatives
Northeast:					
New Hampshire.....	(B)	87	70	(B)	101
Rhode Island.....	(B)	71	84	(B)	128
New York.....	74	70	62	169	148
New Jersey.....	74	77	72	159	157
Pennsylvania.....	75	73	67	173	152
North Central:					
Ohio.....	65	71	67	172	155
Indiana.....	64	73	65	161	139
Illinois.....	74	73	74	186	177
Michigan.....	68	60	62	165	138
Wisconsin.....	62	49	61	186	135
Minnesota.....	81	95	86	145	137
Iowa.....	48	62	53	194	162
Missouri.....	83	74	67	203	149
Nebraska.....	79	57	67	179	(B)
Kansas.....	89	92	74	194	163
South:					
Maryland.....	64	85	70	202	164
Virginia.....	75	83	52	200	149
West Virginia.....	77	83	66	147	143
North Carolina.....	53	52	50	201	169
South Carolina.....	69	102	73	171	118
Georgia.....	56	66	55	200	162
Florida.....	68	73	47	215	236
Kentucky.....	52	79	77	227	161
Tennessee.....	68	83	75	207	158
Alabama.....	56	62	50	342	170
Mississippi.....	61	88	39	101	176
Arkansas.....	60	65	53	169	130
Louisiana.....	54	73	64	161	146
Oklahoma.....	64	82	61	205	160
Texas.....	73	70	47	181	164
West:					
Washington.....	43	63	68	148	137
Oregon.....	81	70	59	196	163
California.....	72	74	93	148	130

B Base less than 200.

Source: Appendix table D-1.

Only 2 of the States exhibited the pattern that was so typical in the heavy industries; that is, smallest relative gains for laborers, followed in turn by operatives and "other workers."

The reason for the difference in pattern during the fifties for this industry and for the furniture and lumber and wood products industry is largely a matter of conjecture. One of the striking differences between these two industries and those previously described is that they are made up of geographically widespread smaller producing units. Therefore, they may be less influenced by the policies of large nationwide business organizations or unions which tend to offset the impact of local market conditions. No doubt other factors are also involved.



## CHAPTER VI

# INCOME AND EDUCATION

### Introduction

This chapter considers the relation between education and income as reflected in detailed statistics from the 1960 Census. Although much is already known about this subject from the annual income surveys conducted by the Bureau of the Census, from tabulations of the preceding two censuses, and from special studies of selected professional occupations, there is some evidence that economists only now are awakening to the pivotal importance of education as it relates to individual income determination and national economic growth. While the benefits of education to the individual are obvious—increased schooling generally leads to a better paying job—benefits to the Nation are perhaps not so well known.

Recent studies of the factors underlying economic growth in the United States highlight the role of education in increasing the productivity of the American worker.<sup>1</sup> Economists have been unable to explain increases in productivity during the past 75 years entirely on the basis of changes in the accumulation or use of physical capital, and have been forced to look for other possible explanations. According to one writer, they have turned principally in two directions:

. . . First, they have begun to study the mechanism of technological changes. . . . Secondly, they have begun to study changes in the quality of the labor force and the process of investment in human beings, especially investment in health and education. . . .<sup>2</sup>

Traditionally, studies of the relation between income and education begin with an apology for stressing the material benefits of schooling. Economists and statisticians—many of whom are also educators—are not oblivious to the cultural and social values of education, to the richness and permanent satisfactions that education adds to life, and to the chance it offers to be of service, to enrich and improve the lives of others. Although we can no more place a monetary value on education in its broadest sense than on friendship or health, the fact remains that there are measurable financial returns associated with, though not necessarily the result of, educational attainment.

Viewed in this perspective, the problem of measuring returns of an investment in education becomes amenable to economic analysis, since it involves the allocation of scarce resources among desired goals. The existence of other

values associated with education should not preclude the possibility of comparing financial costs and benefits; nor should the people engaged in this type of analysis feel compelled to explain that they are not materialistic dolts unaware of the better things in life.

Two different aspects of the problem are analyzed in this chapter. First, the relation between income and education, in a given year, is examined for men in various subgroups of the population classified with respect to education.<sup>3</sup> For example, comparisons will be made of average incomes for all white and nonwhite college graduates. These comparisons are made for the years 1939, 1949, and 1959, and for geographic regions as well as for the country as a whole. Similar comparisons, using earnings rather than total income, are made for whites and nonwhites with different amounts of schooling, in about 100 occupations.

The second type of analysis in this section involves the estimation of lifetime income for various groups with different amounts of schooling. The estimates are based on data for 1939, 1949, and 1959 for whites and nonwhites.

The interpretation of any statistical relation such as that between income and education is a delicate matter, fraught with peril. The unwary analyst might easily view the higher incomes of persons with more than average schooling as *prima facie* evidence of the financial rewards of education. Such an unqualified interpretation would be logically incorrect because it overlooks several important factors that may determine both income and education; it would be empirically incorrect because of important exceptions to the general rule. The following discussion reviews some of the more important qualifications to be kept in mind when interpreting the data.

### Problems of interpreting the data

*Variations about the average.* Although income and education are closely correlated, the relation is far from perfect. For this reason it would be fallacious and perhaps even harmful to draw inferences about individual cases from the evidence presented here for the general population. Many highly educated men have relatively low incomes and it is not uncommon to find wealthy men with little formal training. The 1960 Census shows that about 2½ million college graduates had incomes under \$7,000, whereas nearly the same number of men who never went beyond the twelfth grade receive over \$7,000.

A more general view of the variability of income within education groups is provided by a multiple regression analysis applied to income data for 1958 for males in the Current Population Survey. In this analysis, individual income was used as the dependent variable, and eight characteristics—age, marital status, color, residence, region, weeks worked, occupation, and education—were used as independent variables. A regression equation showing income as a function of all the other variables selected for study was then prepared, and the coefficient of multiple regression was computed to ascertain how much of the variation in individual income could be explained by the specific factors.



The coefficient of multiple correlation was 0.59 ( $R^2=0.35$ ), which means that the combination of the eight factors accounted for only one-third of the variation in individual income. Although many analysts would consider this a rather high correlation, it is quite evident that any attempt to predict individual income on the basis of these eight factors, which include education, would fall far short of the mark.

Obviously there is much about the determination of individual income that is not accounted for by education or by any of the other characteristics included in a census or the usual household survey. The unexplained variation may be due in part to errors in reporting and to chance factors such as illness, or a "good" or "bad" year, which produce short-run fluctuations in individual income. Primarily, however, the inability to explain more of the variation in individual income must be due to omission from the measurement of such key variables as ability, effort, motivation, and quality of education. If education alone is considered, it is undoubtedly true that many intelligent individuals never get as much schooling as they should, and that some individuals with relatively low intelligence get more schooling than they can absorb.

A recent study by the National Science Foundation shows that only 75 to 80 percent of the 17-year-old boys who rank in the upper 30 percent of their high school class go to college.<sup>4</sup> The main reason given for the failure of the high-ability youth to obtain college training was inadequate financial resources. It seems clear, therefore, that the general population contains millions of people who had the ability but lacked the opportunity to go to college. It would not be surprising if the underlying ability of these people showed through in later life despite their lack of college training.

Other possible reasons for the large unexplained variation in the relation between income and education come to the fore when comparisons are made between whites and nonwhites. Several recent studies have noted the sluggish way in which nonwhite incomes have responded to increases in education, but have either ignored the data or treated them in a cursory way.<sup>5</sup> Nonwhites have traditionally been virtually excluded from certain occupations. Many who have completed college are concentrated in low-paid jobs. It is entirely possible, indeed likely, that the increase in their years of schooling has raised the productivity potentials of nonwhites; however, because of discrimination, these potentials may not have been realized. Other factors bearing on the situation relate to the precise meaning of the unit of analysis—years of schooling—with which education is equated.

*Definition of education.* Educational attainment is measured in our census statistics in years of school completed. Since there are obvious differences in the importance of a year of elementary school, a year of high school, or a year of college, these classifications by level of training are made in the basic data; and since they distinguish one year of schooling from another, they introduce a qualitative factor into the statistics. Beyond this distinction, the census figures

make no allowance for differences in the quality of training provided or received. The crude attempts that have been made—largely for purposes of historical comparison—to modify the concept in terms of school year equivalents based on days of schooling per year,<sup>6</sup> must be regarded as faltering first steps. Statistics showing that the average young Negro male is only about 1½ years behind the average young white male in years of school completed, present an erroneous impression of the educational gap between the two groups when account is taken of the fact that most young Negroes have received education in northern “ghetto” schools or “separate but equal” southern schools. Qualitative differences have tended to be ignored in measures of physical capital<sup>7</sup> and, except for minor attention, they are also being ignored in recent work on human capital. For broad overall analyses, it is perhaps essential to ignore the qualitative element, especially since it cannot be accurately measured. This logic seems much less compelling when attention is focused on relatively small subgroups in the population.

Another important limitation of the concept of “years of school completed” is that no differentiation is made with respect to the benefits derived from exposure to a given number of years of education. The concept has an entirely different meaning for a student who has done well in a school system with high standards and established bases for measuring achievement, than it has for the poorly motivated student who has just managed to get by in a school system with low standards. Education, after all, is not synonymous with time spent in a schoolroom. If, as a result of cultural, social, or economic reasons, nonwhite students tend to be concentrated near the bottom of their classes, they cannot be expected to profit as much as white students from a year of schooling, since there appears to be an association between scholastic achievement and occupational success.<sup>8</sup> There is some empirical basis for the judgment that problems of behavior, discipline, and lack of motivation appear disproportionately in Negro areas;<sup>9</sup> this may well explain in part the poor correlation between income and education for nonwhite men.

The whole question of the relationship between income (or earnings) and such objective measures as IQ tests, aptitude tests, standardized achievement tests, or other measures has not been adequately explored, in spite of the fact that there is much basic data on the subject. In view of the importance of education, and the increasing share of the national income being devoted to it, perhaps it is time to intensify the efforts spent on collating school and army records with socioeconomic data collected in household surveys, to the end that the economic importance of education to the individual, when other relevant factors are taken into account, may be more precisely measured.

*Assumptions about economic growth in estimates of lifetime income.* Estimates of lifetime income provide an insight into the financial returns associated with education that cannot be readily obtained from the annual income data. These estimates are derived from data showing variations in the income of individuals in different age and education groups at a given time; specifically,



the calendar years for which data are presented. The figures, therefore, are based on incomes of a cross section of the male population at a given point in time and do not actually trace an individual's income from the time he starts to work until he retires. It is important that several assumptions made in the preparation of these estimates be understood.

The procedure generally used to estimate the present value of income received during a working lifetime for a given subgroup in the population can be summarized as follows: <sup>10</sup>

$$V_{18} = \sum_{n=18}^{75} \frac{Y_n W_n P_n}{(1+r)^{n-18}}.$$

In this formula  $Y_n$  is the average income at age  $n$ ;  $W_n$  is the proportion of persons at age  $n$  with income;  $P_n$  is the probability of surviving at least one year at age  $n$ ;  $r$  is the discount rate; and  $n$  is the working lifetime span, here defined as 18 to 75 years. The income averages come from household surveys conducted with a cross section of the population at a given point in time. Since the average incomes based on these surveys are tabulated only for age groups (for example, 35 to 44 years) rather than for single years of age, it is assumed that the average income for the entire group applies to each single year of age within the group. The model is static in that it assumes that all relationships in the equation which existed at the time of the survey will prevail in the future. It assumes, for instance, that during an individual's working years there will be no future increases in life expectancy, an assumption of doubtful worth.

The model discounts future earnings at the same rate for all socioeconomic groups. This procedure may be valid if the purpose is to provide a single estimate of lifetime income from an overall standpoint; and in that case we would use the rate that would best reveal the present value from a single standpoint. If, however, the purpose is to show the estimate that might be considered by individuals or particular groups in making their decisions, then different discount rates for different socioeconomic groups might be appropriate. One of the major problems of low-income families is their inability to plan ahead—to recognize the future implications of present actions. It is very likely, for example, that college graduates discount the future at a far lower rate than high school graduates. If this is the case, the present value of a future stream of income is likely to be far higher for the college group than for the high school group.

Perhaps the major shortcoming of the model is that it assumes no future increases in average income. It recognizes that each individual may expect his own income to rise as he gains in experience, seniority, and other factors that produce income differences among age groups at a given point in time. What it fails to recognize is that “. . . in a growing economy every individual may expect an upward trend in his own earnings superimposed on the cross-sectional pattern for a particular year.” <sup>11</sup>

As long as the model is used as a standardization procedure, with the age distribution of the population held constant, it can yield meaningful comparisons among subgroups. Very often, however, the results are treated as if they were approximations of lifetime income rather than as statistical abstractions; that is, the figures are used to suggest the actual amount of income in current dollars, discounted to represent present values, that might result from a given investment. In such cases, the figures are interpreted as if they actually represent the best estimate of the present value of the income stream that a given subgroup might expect to receive over a lifetime. Under these circumstances a case can be made for including the returns associated with economic growth as part of the total, because they represent income which the individual may realistically expect to receive. The fact that the receipt of this income is independent of any action on the part of the individual is unimportant here because the objective is to measure the returns *associated* with the investment, and not the returns *caused* by the investment.

Under other circumstances, however, the decision to include such returns or not becomes more complicated, particularly when different types of investments are being considered, or when comparisons are made between different groups. For example, a recent study compared the cost of preventing school dropouts with the estimated amount by which the lifetime incomes of these students might be increased if they could be induced to stay in school.<sup>12</sup> Here it could be argued that returns to lifetime income associated with economic growth should not be included unless it can be demonstrated that education *was responsible* for the returns, or that they accrued differentially to the various education groups and therefore affected comparisons that might be made among them.

If the income measure associated with education were free of all such extraneous factors as differences in innate ability, quality of schooling, and discrimination, it would be reasonable to exclude income gains associated with economic growth. But, if the income figure for each education group shows only the *association* between income and education, with other factors included, there is little reason to exclude income associated with economic growth. Where global comparisons are made and the growth factor is omitted, the results are misleading because the estimating procedure understates the present value of lifetime income.

Empirical evidence based on the 1950 and 1960 Censuses presented in tables VI-1 and VI-2 suggests that the relative increases in income associated with economic growth appear to be greater in the early years of working life than after the age of peak income. Since the procedure generally used in estimating lifetime income counts income received early in life more nearly at its full value than income received in the later years, the failure to include increases due to growth provides an additional source of downward bias in the estimates. Although caution must be exercised in interpreting the data because they are



based on experience during a single decade, the figures do suggest that all groups do not share equally in economic growth, and that the young tend to benefit more than older people.

Why this should be so is not entirely clear. It is obvious, of course, that the young are not as tied down as older people by family responsibilities, home-ownership, job seniority, and so on, and thus have greater freedom to move to new areas and to enter new industries where wages are higher and opportunities for advancement are greater. In addition, since they have been working a relatively short time, the young are less likely than older workers to be trapped in declining industries where incomes may be dropping in spite of the overall economic growth.

Many young people have benefited from modern methods of education and training, and are therefore better equipped than some older people to hold down certain jobs. And many employers prefer young workers (even when they have no greater ability than those who have been in the labor force for a decade or more) because of the younger men's greater potential for growth. At any rate, the evidence regarding the differential impact of economic growth for different age groups, based on the experience during the fifties, seems reasonable; and in view of this fact it may be that the estimating procedure previously described should be modified as follows:

$$V_{18} = \sum_{n=18}^{45} \frac{r_n W_n P_n (1+x)}{(1+r)^{n-18}} + \sum_{n=46}^{75} \frac{r_n W_n P_n (1+y)}{(1+r)^{n-18}}.$$

The symbols are used here with the same meaning they had at the outset, with the following exception: Since gains in income associated with economic growth appear to be greater up to age 45 than later on (see table VI-1), the estimating procedure is broken into two parts—one representing incomes received up to age 45, and the other representing incomes received from ages 46 to 75. The growth factors  $x$  and  $y$  represent the gains in income associated with economic growth for age groups 18 to 45 and 46 to 75.

As previously noted, the model assumes that all relationships existing at the time the estimates are made will remain unchanged in the future. If, for example, the supply of college graduates is increased more rapidly than the demand for them, their incomes relative to the incomes of others might also be changed and, as a result, their expected lifetime incomes would be altered. Changes in technology, tastes, international relations, and many other factors could alter the results; but since these potential changes cannot be predicted, it is assumed that, on balance, their net effect is neutral.

Some of the basic issues involved here can perhaps best be demonstrated by means of a numerical example. If the lifetime income of college graduates had been estimated on the basis of the experience in 1949, using the formula described at the outset, \$4,900 would have been used as the average for the 25-to-34-year age group, and \$8,600 for the 35-to-44-year group (see table VI-1). These values are based on the 1950 Census cross-section data on income received during

Table VI-1.—CHANGE IN MEAN INCOME FOR SELECTED AGE COHORTS OF MALES, BY YEARS OF SCHOOL COMPLETED AND COLOR, BY REGIONS: 1959 AND 1949

[Mean income in 1959 dollars. Minus sign (—) denotes decrease. Figures shown for 1950 represent income in 1949; figures shown for 1960 represent income in 1959]

Region, years of school completed, and color	Cohort of 1915-1924			Cohort of 1905-1914			Cohort of 1895-1904			Cohort of 1885-1894		
	25-34 years in 1950	35-44 years in 1960	Percent in-crease	35-44 years in 1950	45-54 years in 1960	Percent in-crease	45-54 years in 1950	55-64 years in 1960	Percent in-crease	55-64 years in 1950	65-74 years in 1960	Percent in-crease
UNITED STATES												
All Classes												
Total.....	\$3,556	\$6,212	75	\$4,396	\$6,136	40	\$4,540	\$5,522	22	\$4,008	\$3,415	-15
Elementary: Less than 8 years.....	2,295	3,564	55	2,719	3,625	33	2,938	3,501	19	2,776	2,202	-21
8 years.....	3,077	4,705	53	3,660	4,854	33	3,925	4,644	18	3,662	2,967	-19
High school: 1 to 3 years.....	3,440	5,465	59	4,154	5,681	37	4,535	5,614	24	4,268	3,965	-7
4 years.....	3,920	6,379	63	4,868	6,697	38	5,702	6,746	18	5,531	4,527	-18
College: 1 to 3 years.....	4,121	7,854	91	6,035	8,679	44	6,852	8,817	29	6,277	5,386	-14
4 years or more.....	4,891	11,088	127	8,595	11,590	35	9,853	11,039	12	9,292	8,123	-13
White												
Total.....	3,705	6,508	76	4,627	6,449	39	4,782	5,802	21	4,172	3,571	-14
Elementary: Less than 8 years.....	2,527	3,918	55	3,011	3,961	32	3,218	3,781	17	2,959	2,327	-21
8 years.....	3,154	4,845	54	3,738	4,958	33	3,986	4,718	18	3,699	2,994	-19
High school: 1 to 3 years.....	3,537	5,650	60	4,254	5,820	37	4,627	5,729	24	4,326	4,035	-7
4 years.....	3,971	6,494	64	4,939	6,807	38	5,794	6,867	19	5,611	4,602	-18
College: 1 to 3 years.....	4,181	8,023	92	6,140	8,835	44	6,976	9,001	29	6,370	5,463	-14
4 years or more.....	4,939	11,263	128	8,716	11,747	35	9,992	11,181	12	9,411	8,226	-13
Nonwhite												
Total.....	2,123	3,465	63	2,240	3,113	39	2,157	2,674	24	1,854	1,650	-11
Elementary: Less than 8 years.....	1,730	2,590	50	1,887	2,539	35	1,869	2,272	22	1,609	1,431	-11
8 years.....	2,244	3,416	52	2,449	3,358	37	2,522	3,126	24	2,334	2,084	-11
High school: 1 to 3 years.....	2,384	3,728	56	2,644	3,618	37	2,700	3,357	24	2,402	2,243	-7
4 years.....	2,710	4,299	59	2,998	4,090	36	2,983	3,753	26	2,707	2,466	-9
College: 1 to 3 years.....	2,732	4,625	69	3,289	4,527	38	3,273	4,114	26	3,046	2,624	-14
4 years or more.....	3,133	6,366	103	4,371	6,803	56	4,613	6,297	37	3,985	4,850	22



Table VI-1.—CHANGE IN MEAN INCOME FOR SELECTED AGE COHORTS OF MALES, BY YEARS OF SCHOOL COMPLETED AND COLOR, BY REGIONS: 1959 AND 1949—Con.

[Mean income in 1959 dollars. Minus sign (—) denotes decrease. Figures shown for 1950 represent income in 1949; figures shown for 1960 represent income in 1959]

Region, years of school completed, and color	Cohort of 1915-1924				Cohort of 1905-1914				Cohort of 1895-1904				Cohort of 1885-1894			
	25-34 years in 1950	35-44 years in 1960	Percent in- crease	35-44 years in 1950	45-54 years in 1960	Percent in- crease	45-54 years in 1950	55-64 years in 1960	Percent in- crease	55-64 years in 1950	65-74 years in 1960	Percent in- crease	55-64 years in 1950	65-74 years in 1960	Percent in- crease	
NORTH AND WEST  All Classes	Total.....	\$3,786	\$6,603	\$4,748	\$6,606	39	\$4,886	\$5,926	21	\$4,281	\$3,627	-15				
	Elementary: Less than 8 years.....	2,828	4,246	3,321	4,321	30	3,459	4,066	18	3,166	2,465	-22				
	8 years.....	3,235	4,920	3,813	5,054	33	4,060	4,814	19	3,761	3,056	-19				
	High school: 1 to 3 years.....	3,567	5,690	4,303	5,935	38	4,675	5,859	25	4,423	4,083	-8				
	4 years.....	3,965	6,520	4,893	6,818	39	5,740	6,832	19	5,577	5,069	-9				
	College: 1 to 3 years.....	4,168	8,023	6,074	8,823	45	6,886	8,901	29	6,338	5,490	-13				
	4 years or more.....	4,869	11,395	8,702	11,851	36	9,997	11,309	13	9,435	8,322	-12				
	Total.....	3,848	6,776	4,853	6,774	40	4,993	6,072	22	4,342	3,693	-15				
	Elementary: Less than 8 years.....	2,905	4,409	3,440	4,476	30	3,570	4,184	17	3,220	2,501	-22				
	8 years.....	3,272	5,004	3,856	5,117	33	4,097	4,861	19	3,782	3,072	-19				
White	High school: 1 to 3 years.....	3,628	5,817	4,371	6,034	38	4,736	5,943	25	4,468	4,133	-7				
	4 years.....	4,003	6,609	4,947	6,902	40	5,811	6,932	19	5,643	5,154	-9				
	College: 1 to 3 years.....	4,205	8,169	6,154	8,942	45	6,980	9,056	30	6,398	5,545	-13				
	4 years or more.....	4,898	11,530	8,768	11,940	36	10,083	11,409	13	9,503	8,390	-12				
	Total.....	2,711	4,309	2,921	4,002	37	2,834	3,531	25	2,589	2,216	-14				
	Elementary: Less than 8 years.....	2,460	3,548	2,645	3,494	32	2,547	3,159	24	2,330	1,985	-15				
	8 years.....	2,633	3,905	2,832	3,849	36	2,866	3,556	24	2,743	2,362	-14				
	High school: 1 to 3 years.....	2,695	4,242	2,966	4,116	39	3,066	3,885	27	2,732	2,582	-5				
	4 years.....	2,932	4,731	3,217	4,530	41	3,261	4,151	27	2,932	2,660	-9				
	College: 1 to 3 years.....	3,060	5,047	3,494	5,117	46	3,608	4,569	27	3,581	2,797	-22				
	4 years or more.....	3,355	7,062	4,975	8,161	64	4,935	7,142	45	4,514	5,147	14				
Nonwhite	Total.....	2,711	4,309	2,921	4,002	37	2,834	3,531	25	2,589	2,216	-14				
	Elementary: Less than 8 years.....	2,460	3,548	2,645	3,494	32	2,547	3,159	24	2,330	1,985	-15				
	8 years.....	2,633	3,905	2,832	3,849	36	2,866	3,556	24	2,743	2,362	-14				
	High school: 1 to 3 years.....	2,695	4,242	2,966	4,116	39	3,066	3,885	27	2,732	2,582	-5				
	4 years.....	2,932	4,731	3,217	4,530	41	3,261	4,151	27	2,932	2,660	-9				
	College: 1 to 3 years.....	3,060	5,047	3,494	5,117	46	3,608	4,569	27	3,581	2,797	-22				
	4 years or more.....	3,355	7,062	4,975	8,161	64	4,935	7,142	45	4,514	5,147	14				
	Total.....	2,711	4,309	2,921	4,002	37	2,834	3,531	25	2,589	2,216	-14				
	Elementary: Less than 8 years.....	2,460	3,548	2,645	3,494	32	2,547	3,159	24	2,330	1,985	-15				
	8 years.....	2,633	3,905	2,832	3,849	36	2,866	3,556	24	2,743	2,362	-14				

Table VI-1.-CHANGE IN MEAN INCOME FOR SELECTED AGE COHORTS OF MALES, BY YEARS OF SCHOOL COMPLETED AND COLOR, BY REGIONS: 1959 AND 1949—Con.

[Mean income in 1959 dollars. Minus sign ( - ) denotes decrease. Figures shown for 1950 represent income in 1949; figures shown for 1960 represent income in 1959]

Region, years of school completed, and color	Cohort of 1915-1924			Cohort of 1905-1914			Cohort of 1895-1904			Cohort of 1885-1894		
	25-34 years in 1950	35-44 years in 1960	Percent in-crease	35-44 years in 1950	45-54 years in 1960	Percent in-crease	45-54 years in 1950	55-64 years in 1960	Percent in-crease	55-64 years in 1950	65-74 years in 1960	Percent in-crease
SOUTH												
All Classes												
Total.....	\$3,033	\$5,255	73	\$3,573	\$4,978	39	\$3,639	\$4,434	22	\$3,189	\$2,641	-17
Elementary: Less than 8 years.....	1,970	2,991	52	2,208	2,869	30	2,236	2,598	16	2,009	1,696	-16
8 years.....	2,634	4,042	53	3,081	4,085	33	3,290	3,868	18	3,081	2,581	-16
High school: 1 to 3 years.....	3,132	4,825	54	3,750	4,917	31	4,132	4,843	17	3,721	3,618	-3
4 years.....	3,737	5,901	58	4,776	6,281	32	5,541	6,455	16	5,331	4,275	-20
College: 1 to 3 years.....	3,986	7,372	85	5,922	8,246	39	6,750	8,567	27	6,109	5,114	-16
4 years or more.....	4,956	10,270	107	8,086	12,504	55	9,349	10,191	9	8,799	7,577	-14
White												
Total.....	3,327	5,778	74	4,011	5,535	38	4,126	4,973	21	3,577	2,934	-18
Elementary: Less than 8 years.....	2,229	3,418	53	2,532	3,266	29	2,575	2,970	15	2,285	1,899	-17
8 years.....	2,786	4,304	54	3,248	4,296	32	3,421	4,022	18	3,184	3,218	1
High school: 1 to 3 years.....	3,300	5,141	56	3,919	5,143	31	4,296	5,033	17	3,844	3,738	-3
4 years.....	3,841	6,096	59	4,917	6,475	32	5,719	6,649	16	5,470	4,383	-20
College: 1 to 3 years.....	4,109	7,602	85	6,095	8,507	40	6,964	8,837	27	6,292	5,244	-17
4 years or more.....	5,063	10,547	108	8,370	12,973	55	9,660	10,445	8	9,088	7,760	-15
Nonwhite												
Total.....	1,725	2,585	50	1,802	2,349	30	1,720	1,930	12	1,435	1,305	-9
Elementary: Less than 8 years.....	1,516	2,132	41	1,614	2,031	26	1,575	1,732	10	1,319	1,163	-12
8 years.....	1,858	2,699	45	1,979	2,613	32	1,992	2,305	16	1,697	1,692	-2
High school: 1 to 3 years.....	2,003	2,900	45	2,212	2,819	27	2,187	2,441	12	2,006	1,764	-12
4 years.....	2,241	3,304	47	2,549	3,188	25	2,724	2,772	17	2,141	2,054	-4
College: 1 to 3 years.....	2,248	3,657	63	2,951	3,512	19	2,724	3,188	17	2,386	2,437	+2
4 years or more.....	2,900	5,313	83	3,748	5,586	49	4,287	5,273	23	3,609	3,979	10

Source: Unpublished data of the Bureau of the Census.



1949. The data represent differences in income associated only with age (that is, experience, seniority, loss of work due to illness, and similar factors) and are independent of changes in the economy over time.

In other words, on the basis of the cross-section income data by age for 1949 in the 1950 Census, it could be said that the increase in average income between age 30 (the average for 25 to 34) and age 40 (the average for 35 to 44) was \$3,700, representing a gain of 76 percent for the decade, or 7.6 percent per year. The variation of income with age based on cross-section data has been measured annually during the past 15 years and found to be quite stable, and the relationship does not appear to be appreciably affected by cyclical changes in the level of economic activity. Therefore, it could be deduced that the relationship between income and age reflected in the cross-section data provides a measure of the extent to which factors associated with age affect individual income.

An alternative way of estimating the income change between ages 30 and 40 is to compare the average incomes (measured in constant dollars) of college graduates 25 to 34 years old in 1949 (\$4,900) with incomes of college graduates 35 to 44 years old in 1959 (\$11,100). This procedure provides a more valid measure of the change in income over time than the one just described because it permits the comparison of average incomes for the same group of men at two different points in time, whereas the cross-section data permit only a comparison of two different groups of men at the same point in time. On the basis of the cohort approach, it could be said that the average income of college graduates increased by \$6,200, representing a gain of 127 percent for the decade, or about 12.7 percent per year. This increase consists of two separately identifiable components. One is the increase in income associated with aging. On the basis of the cross-section data previously described, it might be roughly estimated that about 7.6 percentage points of the total increase for college graduates is due to the variation of income with age. This factor, incidentally, is taken into account in the traditional method of estimating lifetime income because it is reflected in the averages used in the formula described at the outset.

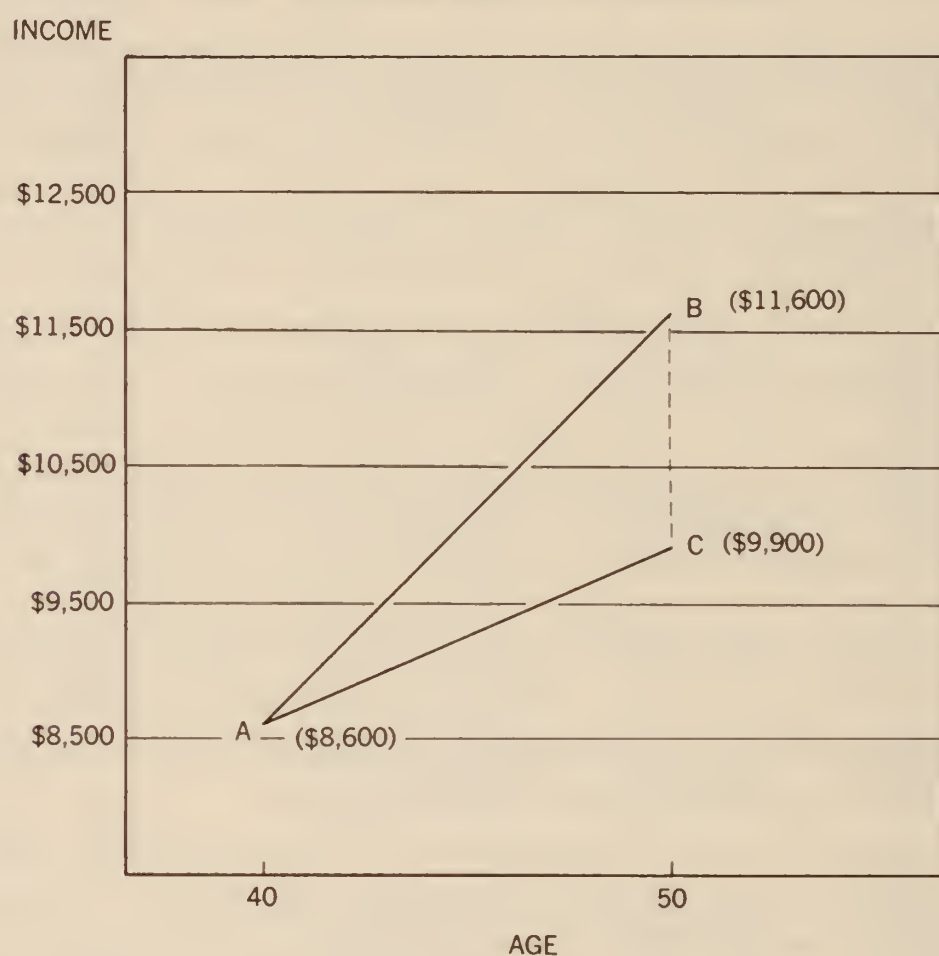
There is, however, a second component of 5.1 percent per year which is not taken into account in the traditional estimating procedure. This component represents the increase for this cohort in average income over time, due to changes in productivity, in the industrial and occupational mix of the labor force, in the geographic distribution of the labor force, and similar factors associated with changes in the economy as a whole.

An alternative view of this problem is presented in figure VI-1. According to the formulation described at the outset, the values used to estimate lifetime income are based on the cross-section data shown at points *A* (\$8,600) and *C* (\$9,900). The difference between these two points represents the variation due to age (experience, seniority, etc.) which the economy is willing to pay for a given resource (college graduates) at a given point in time (1949).

Alternatively, points *A* (\$8,600) and *B* (\$11,600) show how much the economy pays for the same resource at two different points in time. Assuming that the conditions of supply remained unchanged between 1949 and 1959, it can be

concluded that because of the increased experience of this group of college graduates, *and* because of the change in the entire economy during the decade, the annual average income for the group increased from \$8,600 to \$11,600. The difference between points *A* and *B* (\$3,000) represents the *total change* due to both the increase in experience and the growth in the economy, whereas the difference between points *A* and *C* (\$1,300) represents the increase due to age alone. Therefore, the difference between points *B* and *C* (\$1,700) represents the increment associated with economic growth. The age component of the increase is included in the current techniques of estimating lifetime income. The component identified as being associated with economic growth is not included.

Figure VI-1.—AVERAGE (MEAN) INCOME FOR SELECTED AGE COHORTS OF MALE COLLEGE GRADUATES: 1959 AND 1949



Source: Table VI-1.

A summary of the components of change in income for various subgroups in the population is shown in table VI-2. The key factor here is that for each color and education group, the greatest gains in income are experienced by the younger age groups. Thus, for example, to continue with the illustration of college graduates previously used, it can be noted that the cohort of men born between 1915 and 1924 (those who were 25 to 34 years old in 1950 and 35 to 44 years old in 1960) had annual income increases of 12.7 percent, whereas, during the same period, men who were 10 years older had annual increases of only 3.5 percent; and those who were 20 years older had annual gains of only 1.2 percent.



Table VI-2.—COMPONENTS OF CHANGE IN MEAN INCOME FOR SELECTED AGE COHORTS OF MALES, BY YEARS OF SCHOOL COMPLETED AND COLOR, BY REGIONS: 1959 AND 1949

Region, years of school completed, and color	Annual rate of increase in income								
	Age 25-34 and 35-44			Age 35-44 and 45-54			Age 45-54 and 55-64		
	Based on cross-section data <sup>1</sup> (1)	Based on cohort data <sup>2</sup> (2)	Difference (2)-(1) <sup>3</sup> (3)	Based on cross-section data <sup>1</sup> (1)	Based on cohort data <sup>2</sup> (2)	Difference (2)-(1) <sup>3</sup> (3)	Based on cross-section data <sup>1</sup> (1)	Based on cohort data <sup>2</sup> (2)	Difference (2)-(1) <sup>3</sup> (3)
UNITED STATES  All Classes  Total.....  Elementary: Less than 8 years..... 8 years..... High school: 1 to 3 years..... 4 years..... College: 1 to 3 years..... 4 years or more.....  White  Total.....  Elementary: Less than 8 years..... 8 years..... High school: 1 to 3 years..... 4 years..... College: 1 to 3 years..... 4 years or more.....  Nonwhite  Total.....  Elementary: Less than 8 years..... 8 years..... High school: 1 to 3 years..... 4 years..... College: 1 to 3 years..... 4 years or more.....	2.4	7.5	5.1	0.3	4.0	3.7	-1.3	2.2	3.5
	1.8	5.5	3.7	0.8	3.3	2.5	-0.6	1.9	2.5
	1.9	5.3	3.4	0.7	3.3	2.6	-0.7	1.8	2.5
	2.1	5.9	3.8	0.9	3.7	2.8	-0.6	2.4	3.0
	2.4	6.3	3.9	1.7	3.8	2.1	-0.3	1.8	2.1
	4.6	9.1	4.5	1.4	4.4	3.0	-0.9	2.9	3.8
	7.6	12.7	5.1	1.5	3.5	2.0	-0.6	1.2	1.8
	2.5	7.6	5.1	0.3	3.9	3.6	-1.5	2.1	3.6
	1.9	5.5	3.6	0.7	3.2	2.5	-0.9	1.7	2.6
	1.9	5.4	3.5	0.7	3.3	2.6	-0.8	1.8	2.6
	2.0	6.0	4.0	0.9	3.7	2.8	-0.7	2.4	3.1
	2.4	6.4	4.0	1.7	3.8	2.1	-0.3	1.9	2.2
	4.7	9.2	4.5	1.4	4.4	3.0	-1.0	2.9	3.9
	7.6	12.8	5.2	1.5	3.5	2.0	-0.6	1.2	1.8
	0.6	6.3	5.7	-0.4	3.9	4.3	-1.6	2.4	4.0
	0.9	5.0	4.1	-0.1	3.5	3.6	-1.6	2.2	3.8
	0.9	5.2	4.3	0.3	3.7	3.4	-0.8	2.4	3.2
1.1	5.6	4.5	0.2	3.7	3.5	-1.2	2.4	3.6	
1.1	5.9	4.8	-	3.6	3.6	-1.0	2.6	3.6	
2.0	6.9	4.9	-	3.8	3.8	-0.7	2.6	3.3	
4.0	10.3	6.3	0.6	5.6	5.0	-1.6	3.7	5.3	

<sup>1</sup> Change associated with age.<sup>2</sup> Total change over the decade.<sup>3</sup> Change due to economic growth.

Table VI-2.—COMPONENTS OF CHANGE IN MEAN INCOME FOR SELECTED AGE COHORTS OF MALES, BY YEARS OF SCHOOL COMPLETED AND COLOR, BY REGIONS: 1959 AND 1949—Con.

Region, years of school completed, and color	Annual rate of increase in income											
	Age 25-34 and 35-44			Age 35-44 and 45-54			Age 45-54 and 55-64					
	Based on cross-section data <sup>1</sup> (1)	Based on cohort data <sup>2</sup> (2)	Difference (2)-(1) <sup>3</sup> (3)	Based on cross-section data <sup>1</sup> (1)	Based on cohort data <sup>2</sup> (2)	Difference (2)-(1) <sup>3</sup> (3)	Based on cross-section data <sup>1</sup> (1)	Based on cohort data <sup>2</sup> (2)	Difference (2)-(1) <sup>3</sup> (3)			
NORTH AND WEST	All Classes	Total.....	2.5	7.4	4.9	0.3	3.9	3.6	-1.4	2.1	3.6	
		Elementary: Less than 8 years.....	1.7	5.0	3.3	0.4	3.0	2.6	-0.9	1.8	2.7	
		8 years.....	1.8	5.2	3.4	0.6	3.3	2.7	-0.8	1.9	2.7	
		High school: 1 to 3 years.....	2.1	6.0	3.9	0.9	3.8	2.9	-0.6	2.5	3.1	
		4 years.....	2.3	6.4	4.1	1.7	3.9	2.2	-0.3	1.9	2.2	
	College:	1 to 3 years.....	4.6	9.2	4.6	1.3	4.5	3.2	-0.9	2.9	3.8	
		4 years or more.....	5.5	13.4	5.5	1.5	3.6	2.1	-0.6	1.3	1.9	
		White	Total.....	2.6	7.6	5.0	0.3	4.0	3.7	-1.5	2.2	3.7
			Elementary: Less than 8 years.....	1.8	5.2	3.4	0.4	3.0	2.6	-1.1	1.7	2.8
	8 years.....		1.8	5.3	3.5	0.6	3.3	2.7	-0.8	1.9	2.7	
	High school: 1 to 3 years.....		2.0	6.0	4.0	0.8	3.8	3.0	-0.6	2.5	3.1	
	4 years.....		2.4	6.5	4.1	1.7	4.0	2.3	-0.3	1.9	2.2	
	College:	1 to 3 years.....	4.6	9.4	4.8	1.3	4.5	3.2	-0.9	3.0	3.9	
		4 years or more.....	7.9	13.5	5.6	1.5	3.6	2.1	-0.6	1.3	1.9	
		Nonwhite	Total.....	0.8	5.9	5.1	-0.3	3.7	4.0	-0.9	2.5	3.4
Elementary: Less than 8 years.....	0.8		4.4	3.6	-0.4	3.2	3.6	-0.9	2.4	3.3		
8 years.....	0.8		4.8	4.0	0.1	3.6	3.5	-0.4	2.4	2.8		
High school: 1 to 3 years.....	1.0		5.7	4.7	0.3	3.9	3.6	-1.2	2.7	3.9		
4 years.....	1.0		6.1	5.1	0.1	4.1	4.0	-1.1	2.7	3.8		
College:	1 to 3 years.....	1.4	6.5	5.1	0.3	4.6	4.3	-0.1	2.7	2.8		
	4 years or more.....	4.8	11.0	6.2	-0.1	6.4	6.5	-0.9	4.5	5.5		

<sup>1</sup> Change associated with age.<sup>2</sup> Total change over the decade.<sup>3</sup> Change due to economic growth.



Table VI-2.—COMPONENTS OF CHANGE IN MEAN INCOME FOR SELECTED AGE COHORTS OF MALES, BY YEARS OF SCHOOL COMPLETED AND COLOR, BY REGIONS: 1959 AND 1949—Con.

Region, years of school completed, and color	Annual rate of increase in income											
	Age 25-34 and 35-44			Age 35-44 and 45-54			Age 45-54 and 55-64					
	Based on cross-section data <sup>1</sup> (1)	Based on cohort data <sup>2</sup> (2)	Difference (2)-(1) <sup>3</sup> (3)	Based on cross-section data <sup>1</sup> (1)	Based on cohort data <sup>2</sup> (2)	Difference (2)-(1) <sup>3</sup> (3)	Based on cross-section data <sup>1</sup> (1)	Based on cohort data <sup>2</sup> (2)	Difference (2)-(1) <sup>3</sup> (3)			
SOUTH	All Classes	Total.....	1.8	7.3	5.8	0.2	3.9	-1.4			3.6	
		Elementary: Less than 8 years.....	1.2	5.2	4.0	0.1	3.0	2.9	-1.1	1.6	2.7	
		8 years.....	1.7	5.3	3.6	0.7	3.3	2.6	-0.7	1.8	2.5	
		High school: 1 to 3 years.....	2.0	5.4	3.4	1.0	3.1	2.1	-1.1	1.7	2.8	
		4 years.....	2.8	5.8	3.0	1.6	3.2	1.6	-0.4	1.6	2.0	
		College: 1 to 3 years.....	4.9	8.5	3.6	1.4	3.9	2.5	-1.0	2.7	3.7	
		4 years or more.....	6.3	10.7	4.4	1.6	5.5	3.9	-0.6	0.9	1.5	
		White	Total.....	2.1	7.4	5.3	0.3	3.8	3.5	-1.5	2.1	3.6
			Elementary: Less than 8 years.....	1.4	5.3	3.9	0.2	2.9	2.7	-1.3	1.5	2.8
			8 years.....	1.7	5.4	3.7	0.5	3.2	2.7	-0.7	1.8	2.5
			High school: 1 to 3 years.....	1.9	5.6	3.7	1.0	3.1	2.1	-1.2	1.7	2.9
			4 years.....	2.8	5.9	3.1	1.6	3.2	1.6	-0.5	1.6	2.1
College: 1 to 3 years.....	4.8		8.5	3.7	1.4	4.0	2.6	-1.1	2.7	3.8		
Nonwhite	4 years or more.....	6.5	10.8	4.3	1.5	5.5	4.0	-0.6	0.8	1.4		
Nonwhite	Nonwhite	Total.....	0.4	5.0	4.6	-0.5	3.0	3.5	-2.0	1.2	3.2	
		Elementary: Less than 8 years.....	0.6	4.1	3.5	-0.2	2.6	2.8	-1.9	1.0	2.9	
		8 years.....	0.7	4.5	3.8	0.1	3.2	3.1	-1.7	1.6	3.3	
		High school: 1 to 3 years.....	1.0	4.5	3.5	-0.1	2.7	2.8	-0.9	1.2	2.1	
		4 years.....	1.4	4.7	3.3	-0.8	2.5	3.3	-1.0	1.7	2.7	
		College: 1 to 3 years.....	3.1	6.3	3.2	-0.8	1.9	2.7	-1.4	1.7	3.1	
		4 years or more.....	2.9	8.3	5.4	1.4	4.9	3.5	-1.9	2.3	4.2	

<sup>1</sup> Change associated with age.<sup>2</sup> Total change over the decade.<sup>3</sup> Change due to economic growth.

Source: Table VI-1.

If, instead of cohorts, cross-section data had been used, differences associated with age would have accounted for an annual increase of 7.6 percent between the average ages of 30 and 40, 1.5 percent increase between the average ages of 40 and 50, and a decrease of about 0.6 percent between ages 50 and 60. When the age component of the total increase is taken into account, it appears that economic growth accounted for a 5.1 percent annual increase in income between ages 30 and 40, a 2.0 percent increase between ages 40 and 50, and a 1.8 percent increase between ages 50 and 60. Since the growth component is not taken into account in traditional measures of estimating lifetime income, its inclusion would add to the expected income gains of younger men and would therefore have an important bearing on the estimates of expected lifetime income.

Table VI-2 also shows that income gains associated with economic growth appear to be somewhat greater for nonwhites than for whites. Overall, the income gains associated with growth were 5.7 percent per year for nonwhites between the ages of 30 and 40, compared with 5.1 percent for whites of the same age. The corresponding differences between ages 40 and 50 were 4.3 percent for nonwhites and 3.6 percent for whites; and between ages 50 and 60 the gains were 4.0 percent for nonwhites and 3.6 percent for whites. Most of these differences are eliminated, however, when the figures are examined separately for the North and West and for the South, suggesting that the apparently greater gains for nonwhites associated with economic growth are largely due to their migration from the South.

### **Annual income and education**

*The overall picture.* Some of the basic statistics pertaining to the relationship between annual earnings and educational attainment are presented in tables VI-3, VI-4, and VI-5. Table VI-3 shows the figures in absolute form for all groups; table VI-4 shows the percentage differences for elementary, high school, and college graduates; and table VI-5 shows the ratio of initial to peak earnings. In order to permit a comparison of differentials for more recent as well as older graduates, each table presents data for whites and nonwhites for each age group, as well as for the total 25 years old and over.

As previously noted, women are excluded from the analysis for the reasons that a large proportion never enter the labor market after marriage, and that many of those who do work are employed only part time. This is not to say that schooling is economically unimportant for women; on the contrary, the better educated women tend to have higher living standards than those who have not had much schooling. The difference, however, is not generally or necessarily reflected in the kind of work they do—since most of them do not work—nor is it associated with their age, place of residence, or other personal characteristics discussed in this chapter. Among women, the association between education and financial returns tends to be more indirect than for men, and is attributable, to a large extent, to the fact that better educated men tend to marry better educated women. It is because of the indirect nature of this association that the present study excludes the analysis of the relation between income and education for women.



Table VI-3.—AVERAGE (MEAN) TOTAL MONEY EARNINGS FOR MALES 18 TO 64 YEARS OLD IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY YEARS OF SCHOOL COMPLETED, AGE, AND COLOR, BY REGIONS: 1959

Years of school completed and age	United States			North			South			West		
	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite
25 TO 64 YEARS OLD												
Total.....	\$5,847	\$6,112	\$3,260	\$6,128	\$6,266	\$3,998	\$4,905	\$5,407	\$2,427	\$6,520	\$6,682	\$4,498
Elementary: Less than 8 years..	3,659	3,983	2,562	4,341	4,457	3,607	2,932	3,346	2,057	4,215	4,363	3,510
8 years.....	4,725	4,837	3,318	4,872	4,932	3,794	3,979	4,215	2,569	5,221	5,300	4,132
High school: 1 to 3 years.....	5,379	5,555	3,522	5,566	5,685	3,972	4,653	4,958	2,714	5,861	5,974	4,392
4 years.....	6,132	6,250	4,021	6,163	6,245	4,246	5,675	5,889	3,062	6,613	6,721	5,002
College: 1 to 3 years.....	7,401	7,554	4,355	7,565	7,688	4,645	7,034	7,268	3,446	7,424	7,551	5,016
4 years or more.....	10,078	10,238	5,671	10,430	10,541	5,865	9,496	9,773	4,791	9,807	9,934	6,928
4 years.....	9,255	9,406	4,897	9,692	9,785	5,312	8,503	8,766	4,013	8,989	9,115	6,153
5 years or more..	11,136	11,317	6,510	11,372	11,515	6,433	10,944	11,254	5,807	10,744	10,876	7,832
18 TO 24 YEARS												
Total.....	2,731	2,835	1,888	2,895	2,927	2,435	2,299	2,507	1,492	3,035	3,084	2,413
Elementary: Less than 8 years..	1,957	2,131	1,475	2,504	2,528	2,341	1,621	1,830	1,289	2,165	2,151	2,273
8 years.....	2,465	2,589	1,745	2,743	2,777	2,355	2,000	2,185	1,440	2,823	2,888	2,123
High school: 1 to 3 years.....	2,549	2,662	1,860	2,706	2,753	2,282	2,141	2,338	1,520	2,874	2,922	2,302
4 years.....	3,036	3,105	2,216	3,115	3,144	2,600	2,700	2,852	1,714	3,295	3,347	2,597
College: 1 to 3 years.....	2,619	2,641	2,168	2,595	2,596	2,565	2,456	2,513	1,665	2,860	2,897	2,273
4 years or more.....	3,538	3,563	2,844	3,552	3,560	3,159	3,440	3,499	2,544	3,660	3,692	2,936
4 years.....	3,638	3,665	2,818	3,662	3,670	3,140	3,561	3,630	2,570	3,715	3,746	2,956
5 years or more..	3,276	3,291	2,902	3,279	3,281	3,186	3,072	3,107	(B)	3,519	3,552	(B)
25 TO 34 YEARS												
Total.....	5,183	5,412	3,190	5,408	5,527	3,835	4,449	4,871	2,404	5,773	5,897	4,343
Elementary: Less than 8 years..	3,225	3,537	2,332	3,880	3,986	3,349	2,732	3,127	1,967	3,649	3,744	3,037
8 years.....	4,197	4,357	2,994	4,393	4,468	3,562	3,539	3,827	2,384	4,804	4,925	3,572
High school: 1 to 3 years.....	4,783	4,998	3,240	4,947	5,081	3,733	4,115	4,491	2,522	5,366	5,496	4,017
4 years.....	5,361	5,480	3,717	5,422	5,498	4,013	4,878	5,101	2,828	5,860	5,971	4,614
College: 1 to 3 years.....	5,849	5,964	4,072	5,931	6,014	4,320	5,504	5,688	3,283	6,055	6,161	4,675
4 years or more.....	7,053	7,146	4,760	7,136	7,203	4,810	6,833	6,997	3,921	7,109	7,177	5,867
4 years.....	6,986	7,083	4,537	7,139	7,196	4,780	6,668	6,854	3,649	7,011	7,080	5,728
5 years or more..	7,145	7,233	5,047	7,140	7,220	4,837	6,097	7,223	4,479	7,230	7,296	6,036

B Base less than 1,000 persons.

**Table VI-3.—AVERAGE (MEAN) TOTAL MONEY EARNINGS FOR MALES 18 TO 64 YEARS OLD IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY YEARS OF SCHOOL COMPLETED, AGE, AND COLOR, BY REGIONS: 1959—Con.**

Years of school completed and age	United States			North			South			West		
	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite
<b>35 TO 44 YEARS</b>												
Total.....	\$6,259	\$6,540	\$3,543	\$6,497	\$6,653	\$4,243	\$5,315	\$5,839	\$2,633	\$7,084	\$7,251	\$4,995
Elementary: Less than 8 years..	3,658	4,015	2,648	4,377	4,529	3,712	3,057	3,492	2,169	4,374	4,514	3,705
8 years.....	4,730	4,861	3,474	4,850	4,922	3,874	4,072	4,332	2,724	5,368	5,470	4,371
High school: 1 to 3 years.....	5,500	5,671	3,809	5,641	5,757	4,206	4,841	5,141	2,948	6,062	6,175	4,818
4 years.....	6,398	6,507	4,379	6,414	6,492	4,522	5,946	6,142	3,310	6,886	6,988	5,405
College: 1 to 3 years.....	7,846	8,007	4,651	7,989	8,130	4,886	7,405	7,629	3,732	7,989	8,124	5,353
4 years or more.....	10,863	11,027	6,377	11,072	11,188	6,640	10,473	10,777	5,211	10,820	10,929	8,049
4 years.....	9,970	10,127	5,321	10,345	10,449	5,559	9,280	9,561	4,284	9,818	9,934	6,897
5 years or more..	11,967	12,144	7,409	11,962	12,100	7,528	12,246	12,603	6,296	11,885	11,993	9,234
<b>45 TO 54 YEARS</b>												
Total.....	6,194	6,487	3,209	6,536	6,679	4,018	5,100	5,653	2,422	6,940	7,131	4,437
Elementary: Less than 8 years..	3,759	4,093	2,645	4,468	4,595	3,684	2,997	3,418	2,102	4,396	4,580	3,699
8 years.....	4,904	5,000	3,457	5,038	5,091	3,885	4,160	4,371	2,668	5,361	5,432	4,299
High school: 1 to 3 years.....	5,719	5,852	3,655	5,918	6,009	4,097	4,963	5,186	2,830	6,144	6,246	4,398
4 years.....	6,691	6,793	4,157	6,705	6,779	4,309	6,316	6,502	3,273	7,074	7,163	5,154
College: 1 to 3 years.....	8,604	8,752	4,593	8,737	8,851	4,901	8,353	8,616	3,487	8,588	8,686	5,711
4 years or more.....	13,313	13,536	6,463	13,942	14,058	7,081	12,202	12,650	5,582	12,788	12,986	7,934
4 years.....	11,614	11,798	5,346	12,341	12,439	5,703	10,385	10,729	4,592	11,019	11,184	6,578
5 years or more..	15,384	15,684	7,511	15,828	15,985	8,060	14,672	15,336	6,479	14,921	15,189	9,377
<b>55 TO 64 YEARS</b>												
Total.....	5,737	5,993	2,929	6,099	6,218	3,826	4,671	5,196	2,116	6,145	6,310	3,875
Elementary: Less than 8 years..	3,810	4,088	2,530	4,393	4,479	3,590	2,868	3,275	1,911	4,237	4,410	3,349
8 years.....	4,840	4,908	3,324	4,962	5,001	3,772	4,074	4,238	2,476	5,180	5,229	3,958
High school: 1 to 3 years.....	5,762	5,874	3,513	6,028	6,112	3,955	4,959	5,144	2,606	5,949	6,026	4,327
4 years.....	6,824	6,940	3,888	6,888	6,984	4,122	6,523	6,708	2,894	6,987	7,092	4,644
College: 1 to 3 years.....	8,610	8,760	4,307	8,962	9,097	4,661	8,305	8,539	3,235	8,013	8,105	4,996
4 years or more.....	13,089	13,300	5,891	14,078	14,238	6,393	11,782	12,159	5,048	11,478	11,587	7,666
4 years.....	12,061	12,263	4,523	12,845	12,977	5,134	10,913	11,275	3,725	10,778	10,959	5,077
5 years or more..	14,349	14,582	7,399	15,675	15,888	7,684	12,790	13,208	6,470	12,292	12,315	(B)

B Base less than 1,000 persons.

Source: 1960 Census of Population, Subject Reports, Occupation by Earnings and Education, Series PC(2)-7B, and unpublished data of the Bureau of the Census.



Table VI-4.—EARNINGS DIFFERENTIAL BETWEEN MALE ELEMENTARY, HIGH SCHOOL, AND COLLEGE GRADUATES 18 TO 64 YEARS OLD IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY AGE AND COLOR, BY REGIONS: 1959

Region, age, and color	Elementary-high school differential			High school-college differential		
	Elementary	High school	Ratio	High school	College	Ratio
UNITED STATES						
25 to 64 years old.....	\$4,725	\$6,132	77	\$6,132	\$10,078	61
White.....	4,837	6,250	77	6,250	10,238	61
Nonwhite.....	3,318	4,021	83	4,021	5,671	71
18 to 24 years old.....	2,465	3,036	81	3,036	3,538	86
White.....	2,589	3,105	83	3,105	3,563	87
Nonwhite.....	1,745	2,216	79	2,216	2,844	78
25 to 34 years old.....	4,197	5,361	78	5,361	7,053	76
White.....	4,357	5,480	80	5,480	7,146	77
Nonwhite.....	2,994	3,717	81	3,717	4,760	78
35 to 44 years old.....	4,730	6,398	74	6,398	10,863	59
White.....	4,861	6,507	75	6,507	11,027	59
Nonwhite.....	3,474	4,379	79	4,379	6,377	69
45 to 54 years old.....	4,904	6,691	73	6,691	13,313	50
White.....	5,000	6,793	74	6,793	13,536	50
Nonwhite.....	3,457	4,157	83	4,157	6,463	64
55 to 64 years old.....	4,840	6,824	71	6,824	13,089	52
White.....	4,908	6,940	71	6,940	13,300	52
Nonwhite.....	3,324	3,888	85	3,888	5,891	66
NORTH						
25 to 64 years old.....	4,872	6,163	79	6,163	10,430	59
White.....	4,932	6,245	79	6,245	10,541	59
Nonwhite.....	3,794	4,246	89	4,246	5,865	72
18 to 24 years old.....	2,743	3,115	88	3,115	3,552	88
White.....	2,777	3,144	88	3,144	3,560	88
Nonwhite.....	2,355	2,600	91	2,600	3,159	82
25 to 34 years old.....	4,393	5,422	81	5,422	7,136	76
White.....	4,468	5,498	81	5,498	7,203	76
Nonwhite.....	3,562	4,013	89	4,013	4,810	83
35 to 44 years old.....	4,850	6,414	76	6,414	11,072	58
White.....	4,922	6,492	76	6,492	11,188	58
Nonwhite.....	3,874	4,522	86	4,522	6,640	68
45 to 54 years old.....	5,038	6,705	75	6,705	13,942	48
White.....	5,091	6,779	75	6,779	14,058	48
Nonwhite.....	3,885	4,309	90	4,309	7,081	61
55 to 64 years old.....	4,962	6,888	72	6,888	14,078	49
White.....	5,001	6,984	72	6,984	14,238	49
Nonwhite.....	3,772	4,122	92	4,122	6,393	64
SOUTH						
25 to 64 years old.....	3,979	5,675	70	5,675	9,496	60
White.....	4,215	5,889	72	5,889	9,773	60
Nonwhite.....	2,569	3,062	84	3,062	4,791	64
18 to 24 years old.....	2,000	2,700	74	2,700	3,440	78
White.....	2,185	2,852	77	2,852	3,499	82
Nonwhite.....	1,440	1,714	84	1,714	2,544	67
25 to 34 years old.....	3,539	4,878	73	4,878	6,833	71
White.....	3,827	5,101	75	5,101	6,997	73
Nonwhite.....	2,384	2,828	84	2,828	3,921	72
35 to 44 years old.....	4,072	5,946	68	5,946	10,473	57
White.....	4,332	6,142	71	6,142	10,777	57
Nonwhite.....	2,724	3,310	82	3,310	5,211	64
45 to 54 years old.....	4,160	6,316	66	6,316	12,202	52
White.....	4,371	6,502	67	6,502	12,650	51
Nonwhite.....	2,668	3,273	82	3,273	5,582	59
55 to 64 years old.....	4,074	6,523	62	6,523	11,782	55
White.....	4,238	6,708	63	6,708	12,159	55
Nonwhite.....	2,476	2,894	86	2,894	5,048	57

Table VI-4.—EARNINGS DIFFERENTIAL BETWEEN MALE ELEMENTARY, HIGH SCHOOL, AND COLLEGE GRADUATES 18 TO 64 YEARS OLD IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY AGE AND COLOR, BY REGIONS: 1959—Con.

Region, age, and color	Elementary-high school differential			High school-college differential		
	Elementary	High school	Ratio	High school	College	Ratio
WEST						
25 to 64 years old.....	\$5,221	\$6,613	79	\$6,613	\$9,807	67
White.....	5,300	6,721	79	6,721	9,934	68
Nonwhite.....	4,132	5,002	83	5,002	6,928	72
18 to 24 years old.....	2,823	3,295	86	3,295	3,660	90
White.....	2,888	3,347	86	3,347	3,692	91
Nonwhite.....	2,123	2,597	82	2,597	2,936	88
25 to 34 years old.....	4,804	5,860	82	5,860	7,109	82
White.....	4,925	5,971	82	5,971	7,177	83
Nonwhite.....	3,572	4,614	77	4,614	5,867	79
35 to 44 years old.....	5,368	6,886	78	6,886	10,820	64
White.....	5,470	6,988	78	6,988	10,929	64
Nonwhite.....	4,371	5,405	81	5,405	8,049	67
45 to 54 years old.....	5,361	7,074	76	7,074	12,788	55
White.....	5,432	7,163	76	7,163	12,986	55
Nonwhite.....	4,299	5,154	83	5,154	7,934	65
55 to 64 years old.....	5,180	6,987	74	6,987	11,478	61
White.....	5,229	7,092	74	7,092	11,587	61
Nonwhite.....	3,958	4,644	85	4,644	7,666	61

Source: Table VI-3.

Looking first at the figures for all age groups combined, we can see the now familiar tendency for earnings to increase with education. This finding parallels that obtained in virtually all other studies of the relation between income and education, some dating back to the early part of this century.<sup>13</sup> Below the college level, there is roughly a \$500 to \$1,000 difference (about \$10 to \$20 per week) between each of the education groups shown. Thus, among men whose formal schooling ended before the eighth grade, mean income was about \$3,700 in 1959, compared with about \$4,700 for elementary school graduates. Men with some high school training but no diploma had a mean income of \$5,400 compared with \$6,100 for graduates. The greatest increase in annual earnings was found at the college level, where men with 1 to 3 years of training averaged \$7,400 compared with \$10,100 received by graduates.

There is a relatively large difference in earnings (29 percent) between men who complete the eighth grade and those who do not; this pattern has been observed in numerous studies conducted under varying economic conditions. It is hard to imagine that the specific skills learned in the eighth grade are so different from those learned in previous grades as to produce so large a differential in earnings or income. It is more likely that the failure to graduate from elementary school serves as a basis for identifying those persons who, for a variety of reasons, will tend to lag far behind the general population in productivity and income. At this level, education may serve as a proxy variable for other factors that prevent successful learning and lead to low productivity.



Table VI-5.—RATIO OF INITIAL TO PEAK AVERAGE (MEAN) EARNINGS OF MALES IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY YEARS OF SCHOOL COMPLETED, AGE, AND COLOR, BY REGIONS: 1959

Years of school completed and age	United States			North			South			West		
	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite
<b>ELEMENTARY</b>												
Less than 8 years:												
18 to 24 years old.....	\$1,957	\$2,131	\$1,475	\$2,504	\$2,528	\$2,341	\$1,621	\$1,830	\$1,289	\$2,165	\$2,151	\$2,273
45 to 54 years old.....	3,759	4,093	2,645	4,468	4,595	3,684	2,997	3,418	2,102	4,396	4,580	3,699
Ratio.....	52	52	56	56	55	64	54	54	61	49	47	61
8 years:												
18 to 24 years old.....	2,465	2,589	1,745	2,743	2,777	2,355	2,000	2,185	1,440	2,823	2,888	2,123
45 to 54 years old.....	4,904	5,000	3,457	5,038	5,091	3,885	4,160	4,371	2,668	5,361	5,432	4,299
Ratio.....	50	52	50	54	55	61	48	50	54	53	53	49
<b>HIGH SCHOOL</b>												
1 to 3 years:												
18 to 24 years old.....	2,549	2,662	1,860	2,706	2,753	2,282	2,141	2,338	1,520	2,874	2,922	2,302
45 to 54 years old.....	5,719	5,852	3,655	5,918	6,009	4,097	4,963	5,186	2,830	6,144	6,246	4,398
Ratio.....	45	45	51	46	46	56	43	45	54	47	47	52
4 years:												
18 to 24 years old.....	3,036	3,105	2,216	3,115	3,144	2,600	2,700	2,852	1,714	3,295	3,347	2,597
45 to 54 years old.....	6,691	6,793	4,157	6,705	6,779	4,309	6,316	6,502	3,273	7,074	7,163	5,154
Ratio.....	45	46	53	46	46	60	43	44	52	47	47	50
<b>COLLEGE</b>												
1 to 3 years:												
18 to 24 years old.....	2,619	2,641	2,168	2,595	2,596	2,565	2,456	2,513	1,665	2,860	2,897	2,273
45 to 54 years old.....	8,604	8,752	4,593	8,737	8,851	4,901	8,353	8,616	3,487	8,588	8,686	5,711
Ratio.....	30	30	47	30	29	52	29	29	48	33	33	40
4 years or more:												
18 to 24 years old.....	3,538	3,563	2,844	3,552	3,560	3,159	3,440	3,499	2,544	3,660	3,692	2,936
45 to 54 years old.....	13,313	13,536	6,463	13,942	14,058	7,081	12,202	12,650	5,582	12,788	12,986	7,934
Ratio.....	27	26	44	25	25	45	28	28	46	29	28	37
4 years:												
18 to 24 years old.....	3,638	3,665	2,818	3,662	3,670	3,140	3,561	3,630	2,570	3,715	3,746	2,956
45 to 54 years old.....	11,614	11,798	5,346	12,341	12,439	5,703	10,385	10,729	4,592	11,019	11,184	6,578
Ratio.....	31	31	53	30	30	55	34	34	56	34	33	45
5 years or more:												
18 to 24 years old.....	3,276	3,291	2,902	3,279	3,281	3,186	3,072	3,107	(B)	3,519	3,552	(B)
45 to 54 years old.....	15,384	15,684	7,511	15,828	15,985	8,060	14,672	15,336	6,479	14,921	15,189	9,377
Ratio.....	21	21	39	21	21	40	21	20	(X)	24	23	(X)

B Base less than 1,000 persons.

X Not applicable.

Source: Table VI-3.

A similar differential (although not quite as marked) between persons who attain a given level of schooling and those who graduate from that level, appears also at the higher grades. For example, in 1959, men who had started high school but did not graduate received on the average about \$700 more per year than men who completed their schooling in the eighth grade. High school graduates, however, received about \$800 more per year than men who started high school but did not graduate. Similarly, men who attended college but did not graduate had, on the average, about \$1,300 more per year than high school graduates. The comparable differential for men with 4 years of college was about \$1,900 per year. The income differential between men with 1 to 3 years of college, and those who have graduated, reflects, in part, differences in "ability." It is also likely that a diploma leads to better paying jobs, and thereby creates an earnings differential not necessarily related to the specific skills acquired in the final year of schooling.<sup>14</sup>

Lack of education limits opportunities for occupational advancement and produces a very narrow range of earnings. Table VI-5 shows that the average annual earnings of young elementary school graduates was 50 percent of their peak earnings. Among high school graduates the opportunities for advancement with age and work experience are somewhat greater, but still quite small. For this group, average earnings at ages 18 to 24 were 45 percent of their peak average at ages 45 to 54. Men with college backgrounds have by far the greatest opportunities for advancement. Initial earnings for men with 4 years of college were less than one-third of peak earnings; and for those with post-graduate work, initial earnings were only one-fifth of peak earnings. In part, the greater relative gains of college men are due to the fact that most of them have not completed their formal studies until they are 22 years old. As a result, the average for the 18-to-24-year age group reflects, to a large extent, receipts from part-time employment in jobs not necessarily related to their college training. In contrast, those men 18 to 24 years old who did not go beyond high school have had an average of 3 years of work experience, and they tend to work at full-time jobs. For the same reason, men in this age group who did not go beyond elementary school are also experienced full-time workers. However, the conclusions presented here regarding the variation of earnings with age for men with different amounts of education are valid even if the full range of ages is used rather than just the ages of initial and peak earnings. This fact can be seen in table VI-6.

Among elementary and high school graduates there was a sharp increase in average earnings between the ages of 18 to 24 years (hereafter referred to as age 20 which is roughly the average for the group) and 25 to 34 years (hereafter referred to as age 30); and a moderate rise during the following 10 years. By age 40, however, most of these men were close to their peak earnings and most increases thereafter were small, resulting in a slight drop in mean earnings at ages 55 to 64. In contrast, the average earnings of college graduates rose sharply for each age group and did not reach a peak until they were over 45 years old.



Table VI-6.—VARIATION OF AVERAGE (MEAN) EARNINGS FOR MALE ELEMENTARY, HIGH SCHOOL, AND COLLEGE GRADUATES 18 TO 64 YEARS OLD: 1959

Age	Average (mean) earnings			Percent increase over preceding age		
	Elementary school graduates	High school graduates	College graduates	Elementary school graduates	High school graduates	College graduates
18 to 24 years.....	\$2,465	\$3,036	\$3,538	(X)	(X)	(X)
25 to 34 years.....	4,197	5,361	7,053	70	77	99
35 to 44 years.....	4,730	6,398	10,863	13	19	54
45 to 54 years.....	4,904	6,691	13,313	4	5	23
55 to 64 years.....	4,840	6,824	13,089	-1	2	-2

X Not applicable.

Source: Table VI-3.

*Variations by color and region.* When the tendencies described for the total population are examined separately for whites and nonwhites, it can be seen that the earnings of whites are much more responsive to increases in educational attainment, reflecting perhaps their greater opportunity to use the skills acquired in school. The relationship between earnings and education for whites is very similar to that previously described for the total population: Below the college level, earnings increased by \$500 to \$1,000 for each of the education groups shown in table VI-3. Among college men the gains were much greater, ranging from \$1,000 to \$2,000.

Gains in earnings for nonwhites were much smaller at all education levels. Below the college level, greatest gains appear to be associated with graduation from elementary school. The average earnings of nonwhite elementary school graduates were \$800 greater than earnings of men who did not reach the eighth grade. An average of 2 years of high school added only \$200 to annual earnings; and high school graduates made only \$500 more than men with an average of 2 years of high school.

The economic value of college training was particularly less significant for nonwhites than for whites. The nonwhite male with 1 to 3 years of college averaged only \$300 more per year than the high school graduates. Among whites the differential was 4 times as great (\$1,300). Similarly, the nonwhite with 4 years of college earned only \$500 more than the men with only 1 to 3 years of college. Among whites this differential was about 4 times as great (\$1,900).

These patterns did not vary appreciably by region. Earnings for whites and nonwhites were lower in the South than in the other regions; but the relationship between earnings and education was much the same as in the other regions.

The variation of earnings with age for whites and nonwhites is summarized in table VI-7. Among elementary school graduates, whites and nonwhites had about the same pattern of earnings. In both cases there were sharp increases in average earnings between ages 20 and 30, and moderate increases

**Table VI-7.—VARIATION OF AVERAGE (MEAN) EARNINGS FOR MALE ELEMENTARY, HIGH SCHOOL, AND COLLEGE GRADUATES 18 TO 64 YEARS OLD, BY COLOR, BY REGIONS: 1959**

[Minus sign (—) denotes decrease]

Region and age	Elementary school graduates				High school graduates				College graduates			
	Average (mean) earnings		Percent increase over preceding age		Average (mean) earnings		Percent increase over preceding age		Average (mean) earnings		Percent increase over preceding age	
	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite
<b>UNITED STATES</b>												
18 to 24 years.....	\$2,589	\$1,745	(X)	(X)	\$3,105	\$2,216	(X)	(X)	\$3,563	\$2,844	(X)	(X)
25 to 34 years.....	4,357	2,994	68	72	5,480	3,717	76	68	7,146	4,760	101	67
35 to 44 years.....	4,861	3,474	12	16	6,507	4,379	19	18	11,027	6,377	54	34
45 to 54 years.....	5,000	3,457	3	(Z)	6,793	4,157	4	-5	13,536	6,463	23	1
55 to 64 years.....	4,908	3,324	-2	-4	6,940	3,888	2	-6	13,300	5,891	-2	-9
<b>NORTH</b>												
18 to 24 years.....	2,777	2,355	(X)	(X)	3,144	2,600	(X)	(X)	3,560	3,159	(X)	(X)
25 to 34 years.....	4,468	3,562	61	51	5,498	4,013	75	54	7,203	4,810	102	52
35 to 44 years.....	4,922	3,874	10	9	6,492	4,522	18	13	11,188	6,640	55	38
45 to 54 years.....	5,091	3,885	3	(Z)	6,779	4,309	4	-5	14,058	7,081	26	7
55 to 64 years.....	5,001	3,772	-2	-3	6,984	4,122	3	-4	14,238	6,393	1	-10
<b>SOUTH</b>												
18 to 24 years.....	2,185	1,440	(X)	(X)	2,852	1,714	(X)	(X)	3,499	2,544	(X)	(X)
25 to 34 years.....	3,827	2,384	75	66	5,101	2,828	79	65	6,997	3,921	100	54
35 to 44 years.....	4,332	2,724	13	14	6,142	3,310	20	17	10,777	5,211	54	34
45 to 54 years.....	4,371	2,668	1	-2	6,502	3,273	6	-1	12,650	5,582	17	7
55 to 64 years.....	4,238	2,476	-3	-7	6,708	2,894	3	-12	12,159	5,048	-4	-10
<b>WEST</b>												
18 to 24 years.....	2,888	2,123	(X)	(X)	3,347	2,597	(X)	(X)	3,692	2,936	(X)	(X)
25 to 34 years.....	4,925	3,572	71	68	5,971	4,614	78	78	7,177	5,867	94	100
35 to 44 years.....	5,470	4,371	11	22	6,988	5,405	17	17	10,929	8,049	52	37
45 to 54 years.....	5,432	4,299	(Z)	-2	7,163	5,154	3	-5	12,986	7,934	19	-2
55 to 64 years.....	5,229	3,958	-3	-8	7,092	4,644	-1	-10	11,587	7,666	-11	-3

X Not applicable.

Z Less than one-half of 1 percent.

Source: Table VI-3.



between ages 30 and 40, reaching a peak which was maintained through age 50. Earnings for both groups dropped as the age for retirement was approached.

The earnings pattern for high school graduates is similar to that just described but there are important differences. Among whites, there appeared to be no tendency for earnings to decrease with advancing age. Here again, the gains in average earnings were very sharp between ages 20 and 30, moderate between ages 30 and 40, and slight thereafter. Only in the West was there a tendency for the average to fall beyond age 50, and here the drop was slight.

The pattern of earnings for nonwhite high school graduates is significantly different from that for whites. In all regions, nonwhite high school graduates have their peak earnings at age 40, and lower incomes as they get older. In some regions, the decreases are significant. In the West, for example, the average for nonwhite high school graduates dropped by one-seventh—from \$5,400 for those aged 35 to 44, to \$4,600 for those 55 to 64. The pattern of differences between the earnings of white and nonwhite high school graduates is much sharper than the pattern described for elementary school graduates. Many factors are undoubtedly involved; for instance, the kinds of jobs open to high school graduates are more restricted for nonwhites than for whites. When a middle-aged nonwhite high school graduate loses his job, he probably has much more difficulty in finding another job at the same rate of pay than would a white high school graduate. Also, whites may be given preference for positions with increasing responsibility and pay; thus, their earnings tend to increase with age.

The greatest difference in the variation of earnings with age between whites and nonwhites is at the college level. Among whites, average earnings doubled between the ages of 20 and 30, increased by more than half between the ages of 30 and 40, and by about 25 percent between the ages of 40 and 50. As the retirement age approached, there was only a slight drop in the average. Nonwhite college graduates also had a substantial increase in average earnings between ages 20 and 40, although their gains were considerably less than those received by whites. In contrast to the pattern for whites, however, the average earnings of nonwhites increased slightly between ages 40 and 50 and fell appreciably during the next 10 years, reflecting the difficulty of nonwhites to maintain their employment and earnings with advancing age.

*Variation by occupation.* Occupations vary greatly in the amount of formal schooling required. Most professional work can be done only by those who have completed 4 years of college and, for many jobs, several years of highly specialized postgraduate work are also required. Although clerical workers need far less education, completion of high school is today generally a minimum requirement for most white-collar jobs. Laborers and operatives, on the other hand, need little schooling or specialized training of any type. Many of the crafts require some high school training plus several years of apprenticeship which are not reflected in the census reports on years of school completed. In view of these

considerations, the relationship between education and earnings is quite different in the various occupations. The basic figures bearing on this relationship are shown in table VI-8. In order to remove the effects of age from the data, the figures are shown for men aged 25 to 64, and for those aged 35 to 44.

Relatively few occupations in the professional field had appreciable numbers of persons who were not college graduates. In these occupations, however, the earnings of college graduates exceeded those of elementary and high school graduates by a wide margin. Accountants and auditors are a case in point. Those who were elementary or high school graduates averaged about \$7,200; college graduates averaged \$8,500. Those without college training probably worked at the more routine jobs in which they carried out the functions prescribed by men with formal training in accounting. It is undoubtedly true that in this, as in other professions, most of the top jobs require college training.

Similar differences were found among engineers and scientists. In these occupations the differential between college graduates and men with less schooling was considerably greater than in accounting. As for engineers, a relatively small number worked in the profession even though they had never gone beyond the eighth grade, and no doubt some who claimed the title were not actually doing engineering work. Others may have been *bona fide* engineers on the basis of experience rather than education. At any rate, in 1959 their average earnings were \$7,400; high school graduates earned \$8,100 on the average; and college graduates, \$9,700. Differences of similar scale prevailed among natural scientists.

Farming is an occupation in which earnings are not often thought to be highly associated with education. This impression is incorrect. In 1959, farmers who did not go beyond elementary school earned only \$3,200 on the average; high school graduates, about \$4,200; and college graduates averaged \$6,800. The age distribution of farmers is quite different from that of other occupations. However, as shown in table VI-8, the relationships described above are as valid for the 35-to-44-year age group as for all men in the prime working ages.

Although earnings of clerical workers are somewhat less responsive to education than earnings of most other workers, for the occupation group as a whole they varied appreciably with education, average earnings ranging from \$4,800 for elementary school graduates, to \$6,400 for those with 4 years or more of college.

Within this major group, however, the pattern of earnings was much different for some specific occupations. For example, mail carriers who were elementary school graduates averaged \$5,000, and only \$400 more if they had completed high school. College men who delivered the mail earned only \$5,300. Mail delivery was one of the few occupations in which college graduates earned less than high school graduates. It is possible, of course, that some of the college men in this occupation were part-time workers, and that others had less seniority than men who entered the postal service immediately upon graduation from high



school. Even so, however, it is apparent that the limited range of earnings does not permit much of a payment for education. The earnings pattern of postal clerks and shipping clerks was about the same as that of mail carriers.

The earnings of craftsmen were most responsive to increases in education—more so than might be expected on the basis of *a priori* judgment. A question hard to answer is, what, specifically, do bricklayers, plumbers, mechanics, and other craftsmen learn in 4 years of high school that would make their annual earnings considerably higher than those of men in the same trade who never went beyond grammar school? Part of the answer may be that education is associated with general intelligence, and that “years of schooling” is in some measure a proxy variable for aptitude to learn. Another possibility is that even within a given trade, employers or unions give preference to high school graduates in consideration for apprenticeships. Whatever the explanation may be, in every craft for which data are shown, high school graduates earned considerably more than men with only 8 years of schooling. In some occupations—such as linemen, electricians, plumbers, and mechanics—college training also seemed to pay off, while in others, there seemed to be no added reward for higher education.

Considering the occupation group as a whole, craftsmen who did not go beyond the eighth grade averaged \$5,200 in 1959; high school graduates, \$6,100; and college graduates, \$8,100. The fact that the overall average for college graduates is higher than that shown for any specific craft within the group indicates that most craftsmen with college training work at jobs other than those shown in table VI-8. A large proportion are foremen.

The highest paid workers in the building trades are electricians. Their earnings ranged from \$6,100 for elementary school graduates, to \$6,800 for college graduates. Overall, plumbers earned somewhat less than electricians, a difference due partly to the fact that plumbers on the average have considerably less education; those who were elementary school graduates earned about \$500 less than electricians with the same years of schooling. However, plumbers who were high school graduates earned as much as electricians with equal education, and college graduates earned considerably more. Plasterers without much education earned considerably less than plumbers; however, those who were high school graduates had average earnings only about \$100 less than plumbers. Painters and carpenters earned far less than other men in the building trades regardless of the years of schooling they had completed.

Even among semiskilled and unskilled workers there was a close association between earnings and education. Among operatives, for example, elementary school graduates averaged \$4,700; high school graduates, \$5,300; and college graduates, \$5,800. Bus drivers with 4 years of high school averaged \$700 a year more than elementary school graduates; for truck drivers the differential was \$600; and for miners, \$1,000. Even among the low-paid farm laborers, high school graduates earned 40 percent more than elementary school graduates.

Table VI-8.—AVERAGE (MEAN) TOTAL MONEY EARNINGS FOR MALES 25 TO 64 YEARS OLD IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY YEARS OF SCHOOL COMPLETED, AGE, AND COLOR, FOR SELECTED OCCUPATIONS: 1959

Age and occupation	Total				White				Nonwhite			
	All education groups	Elementary school graduates	High school graduates	College graduates	All education groups	Elementary school graduates	High school graduates	College graduates	All education groups	Elementary school graduates	High school graduates	College graduates
25 TO 64 YEARS												
Total experienced civilian labor force.....	\$5,847	\$4,725	\$6,132	\$10,078	\$6,112	\$4,837	\$6,250	\$10,238	\$3,260	\$3,318	\$4,021	\$5,671
Professional, technical, and kindred workers <sup>1</sup> .....	8,762	5,991	7,104	10,003	8,881	6,110	7,156	10,154	5,519	3,393	5,159	6,147
Accountants and auditors.....	7,825	7,156	7,270	8,480	7,852	7,196	7,282	8,518	5,969	(B)	(B)	6,082
Clergymen.....	4,399	3,509	4,032	4,589	4,503	3,858	4,312	4,613	2,968	(B)	2,658	3,897
College professors and instructors.....	8,158	(B)	(B)	8,235	8,232	(B)	(B)	8,309	6,574	(B)	(B)	6,668
Dentists.....	16,057	(B)	(B)	16,231	16,232	(B)	(B)	16,424	11,266	(B)	(B)	11,086
Engineers, technical.....	9,001	7,363	8,137	9,681	9,023	7,399	8,153	9,706	7,447	(B)	(B)	8,129
Lawyers and judges.....	15,793	(B)	10,448	15,927	15,919	(B)	(B)	16,054	8,270	(B)	(B)	(B)
Natural scientists.....	8,288	(B)	6,638	8,718	8,359	(B)	6,668	8,792	6,139	(B)	(B)	6,472
Physicians and surgeons.....	19,493	(B)	19,632	19,908	19,908	(B)	(B)	20,048	9,393	(B)	(B)	9,455
Social scientists.....	9,030	(B)	8,007	9,398	9,090	(B)	8,081	9,468	(B)	(B)	(B)	(B)
Teachers.....	6,042	(B)	5,625	6,149	6,148	(B)	5,709	6,256	4,742	(B)	(B)	4,831
Farmers and farm managers.....	3,438	3,199	4,231	6,830	3,576	3,227	4,231	6,908	1,551	1,982	4,242	(B)
Managers, officials, and proprietors, exc. farm.....	9,387	7,151	8,742	13,400	9,478	7,210	8,786	13,491	4,823	4,485	5,624	6,532
Clerical and kindred workers <sup>1</sup> .....	5,372	4,843	5,451	6,447	5,458	4,900	5,517	6,546	4,282	3,876	4,470	4,939
Mail carriers.....	5,265	4,964	5,351	5,250	5,298	4,986	5,381	5,276	4,996	(B)	5,040	5,183
Office machine operators.....	5,545	4,971	5,636	6,303	5,607	4,999	5,696	6,301	4,544	(B)	4,502	(B)
Postal clerks.....	5,383	5,241	5,459	5,392	5,458	5,310	5,530	5,360	5,038	(B)	5,066	5,464
Shipping and receiving clerks.....	4,532	4,533	4,674	4,716	4,654	4,597	4,814	4,909	3,616	3,609	3,609	(B)
Sales workers.....	6,990	5,397	6,797	9,350	7,043	5,434	6,831	9,393	4,105	3,586	4,647	5,301
Craftsmen, foremen, and kindred workers <sup>1</sup> .....	5,585	5,245	6,091	8,133	5,678	5,299	6,142	8,223	3,757	3,834	4,487	5,157
Brickmasons, stonemasons, and tile setters.....	5,192	5,039	5,905	(B)	5,461	5,142	6,106	(B)	3,426	4,012	3,864	(B)
Carpenters.....	4,531	4,387	5,325	5,666	4,618	4,428	5,364	5,864	2,928	3,182	4,067	(B)
Compositors and typesetters.....	6,192	5,993	6,312	6,678	6,231	6,042	6,352	6,698	4,700	(B)	(B)	(B)
Electricians.....	6,224	6,083	6,407	6,840	6,247	6,101	6,423	6,905	5,143	(B)	5,596	(B)
Linemen & servicemen, teleg., t'phone, & power..	6,173	5,816	6,304	7,117	6,202	5,841	6,314	7,117	4,373	(B)	(B)	(B)
Machinists.....	5,690	5,476	5,964	5,695	5,723	5,501	5,985	5,684	4,591	4,349	5,068	(B)
Mechanics and repairmen.....	5,033	4,816	5,486	6,050	5,120	4,707	5,373	6,136	3,713	3,670	4,372	(B)
Painters, construction and maintenance.....	4,128	4,154	4,753	4,772	4,237	4,205	4,845	4,778	2,808	3,052	3,497	(B)
Plasterers.....	5,152	4,878	6,212	(B)	5,536	5,072	6,416	(B)	3,288	(B)	(B)	(B)
Plumbers and pipe fitters.....	5,857	5,580	6,357	7,685	5,944	5,625	6,394	7,847	3,653	(B)	(B)	(B)
Toolmakers, and die makers and setters.....	6,802	6,584	6,991	7,042	6,818	6,596	7,004	7,069	(B)	(B)	(B)	(B)

B Base less than 1,000 persons.

<sup>1</sup> Includes other occupation groups, not shown separately.



Table VI-8.—AVERAGE (MEAN) TOTAL MONEY EARNINGS FOR MALES 25 TO 64 YEARS OLD IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY YEARS OF SCHOOL COMPLETED, AGE, AND COLOR, FOR SELECTED OCCUPATIONS: 1959—Con.

Age and occupation	Total				White				Nonwhite			
	All education groups	Elementary school graduates	High school graduates	College graduates	All education groups	Elementary school graduates	High school graduates	College graduates	All education groups	Elementary school graduates	High school graduates	College graduates
25 TO 64 YEARS—Con.												
Operatives and kindred workers <sup>1</sup> .....	\$4,702	\$4,667	\$5,271	\$5,833	\$4,866	\$4,757	\$5,372	\$5,997	\$3,421	\$3,591	\$3,990	\$4,123
Bus drivers.....	4,392	4,294	5,020	(B)	4,468	4,325	5,060	(B)	3,708	(B)	4,698	(B)
Mine operatives and laborers (n.e.c.).....	4,456	4,318	5,339	(B)	4,510	4,342	5,388	(B)	3,454	(B)	(B)	(B)
Truck and tractor drivers.....	4,655	4,771	5,340	5,504	4,943	4,913	5,494	5,886	3,018	3,339	3,722	(B)
Operatives and kindred workers (n.e.c.).....	4,715	4,701	5,275	6,143	4,855	4,774	5,366	6,300	3,618	3,823	4,129	(B)
Service workers, including private household <sup>1</sup> .....	3,974	3,757	4,689	5,233	4,279	3,927	4,953	5,555	2,922	2,926	3,291	3,634
Barbers.....	4,388	4,409	4,737	(B)	4,546	4,509	4,864	(B)	2,958	(B)	3,529	(B)
Firemen, fire protection.....	5,729	5,375	5,896	(B)	5,738	5,371	5,907	(B)	5,400	(B)	(B)	(B)
Policemen and detectives.....	5,474	4,788	5,527	7,618	5,498	4,810	5,541	7,721	4,922	(B)	5,205	(B)
Farm laborers and foremen.....	1,976	2,258	3,161	4,734	2,237	2,373	3,264	4,869	1,285	1,480	2,349	(B)
Laborers, exc. farm and mine.....	3,578	3,775	4,393	4,872	3,895	3,924	4,603	5,111	2,802	3,093	3,433	3,755
35 TO 44 YEARS												
Total experienced civilian labor force.....	6,259	4,730	6,398	10,863	6,540	4,861	6,507	11,027	3,543	3,474	4,379	6,377
Professional, technical, and kindred workers <sup>1</sup> .....	9,592	5,858	7,510	11,011	9,703	6,007	7,560	11,158	6,407	(B)	5,404	7,145
Accountants and auditors.....	8,345	(B)	7,267	9,241	8,374	(B)	7,273	9,276	6,701	(B)	(B)	(B)
Clergymen.....	4,708	(B)	4,401	4,856	4,774	(B)	4,657	4,878	3,386	(B)	(B)	(B)
College professors and instructors.....	8,916	(B)	(B)	8,971	9,020	(B)	(B)	9,073	6,591	(B)	(B)	(B)
Dentists.....	20,098	(B)	(B)	20,118	20,208	(B)	(B)	20,229	(B)	(B)	(B)	(B)
Engineers, technical.....	9,560	6,869	8,413	10,445	9,583	6,977	8,430	10,465	8,102	(B)	(B)	9,204
Lawyers and judges.....	14,920	(B)	(B)	15,028	15,045	(B)	(B)	15,156	(B)	(B)	(B)	(B)
Natural scientists.....	9,014	(B)	7,261	9,439	9,070	(B)	7,300	9,492	7,256	(B)	(B)	7,807
Physicians and surgeons.....	23,302	(B)	(B)	23,388	23,664	(B)	(B)	23,758	(B)	(B)	(B)	(B)
Social scientists.....	9,678	(B)	(B)	10,188	9,772	(B)	(B)	10,316	(B)	(B)	(B)	(B)
Teachers.....	6,571	(B)	6,169	6,636	6,711	(B)	6,292	6,778	4,968	(B)	(B)	5,035
Farmers and farm managers.....	3,839	3,436	4,480	7,565	3,980	3,460	4,472	7,646	1,940	2,447	4,937	(B)
Managers, officials, and proprietors, exc. farm.....	9,350	6,597	8,600	12,919	9,432	6,669	8,642	13,014	5,310	4,566	5,843	6,336
Clerical and kindred workers <sup>1</sup> .....	5,669	4,767	5,678	7,180	5,771	4,854	5,746	7,329	4,525	3,865	4,699	5,293
Mail carriers.....	5,374	5,097	5,431	5,355	5,395	5,124	5,451	5,514	5,173	(B)	5,185	(B)
Office machine operators.....	6,068	(B)	6,109	(B)	6,137	(B)	6,181	(B)	(B)	(B)	(B)	(B)
Postal clerks.....	5,448	5,372	5,488	5,547	5,497	5,390	5,530	5,452	5,223	(B)	5,217	5,690
Shipping and receiving clerks.....	4,706	4,493	4,919	(B)	4,858	4,627	5,062	(B)	3,671	(B)	3,781	(B)

B Base less than 1,000 persons.

<sup>1</sup> Includes other occupation groups, not shown separately.

Table VI-8.—AVERAGE (MEAN) TOTAL MONEY EARNINGS FOR MALES 25 TO 64 YEARS OLD IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY YEARS OF SCHOOL COMPLETED, AGE, AND COLOR, FOR SELECTED OCCUPATIONS: 1959—Con.

Age and occupation	Total				White				Nonwhite			
	All education groups	Elementary school graduates	High school graduates	College graduates	All education groups	Elementary school graduates	High school graduates	College graduates	All education groups	Elementary school graduates	High school graduates	College graduates
35 TO 44 YEARS—Con.												
Sales workers.....	\$7,618	\$5,242	\$7,182	\$10,679	\$7,673	\$5,300	\$7,212	\$10,720	\$4,682	(B)	\$5,278	(B)
Craftsmen, foremen, and kindred workers <sup>1</sup> .....	5,900	5,294	6,405	8,799	6,004	5,363	6,455	8,912	3,994	\$4,048	4,831	(B)
Brickmasons, stonemasons, and tile setters.....	5,370	5,009	6,069	(B)	5,687	5,144	6,271	(B)	3,676	(B)	(B)	(B)
Carpenters.....	4,984	4,792	5,677	(B)	5,083	4,843	5,722	(B)	3,237	(B)	(B)	(B)
Compositors and typesetters.....	6,404	(B)	6,568	(B)	6,440	(B)	6,610	(B)	(B)	(B)	(B)	(B)
Electricians.....	6,435	6,078	6,605	(B)	6,455	6,114	6,623	(B)	5,627	(B)	(B)	(B)
Linemen & servicemen, teleg., t'phone, & power..	6,586	5,769	6,801	(B)	6,627	5,811	6,812	(B)	(B)	(B)	(B)	(B)
Machinists.....	5,927	5,515	6,219	(B)	5,964	5,561	6,232	(B)	4,724	(B)	(B)	(B)
Mechanics and repairmen.....	5,344	4,932	5,840	6,746	5,442	5,007	5,888	6,902	3,902	3,682	4,678	(B)
Painters, construction and maintenance.....	4,410	4,308	5,007	(B)	4,547	4,398	5,099	(B)	3,022	(B)	(B)	(B)
Plasterers.....	5,511	(B)	6,593	(B)	5,921	(B)	6,828	(B)	3,682	(B)	(B)	(B)
Plumbers and pipe fitters.....	6,225	5,671	6,684	(B)	6,319	5,726	6,725	(B)	3,874	(B)	(B)	(B)
Toolmakers, and die makers and setters.....	7,062	6,647	7,239	(B)	7,079	6,660	7,252	(B)	(B)	(B)	(B)	(B)
Operatives and kindred workers <sup>1</sup> .....	4,954	4,823	5,569	6,541	5,139	4,936	5,664	6,766	3,608	3,696	4,334	(B)
Bus drivers.....	4,849	4,355	5,367	(B)	4,907	4,409	5,390	(B)	4,368	(B)	(B)	(B)
Mine operatives and laborers (n.e.c.).....	4,681	4,554	5,443	(B)	4,723	4,580	5,505	(B)	3,854	(B)	(B)	(B)
Truck and tractor drivers.....	4,940	5,043	5,551	(B)	5,249	5,212	5,719	(B)	3,144	3,420	3,887	(B)
Operatives and kindred workers (n.e.c.).....	4,949	4,815	5,570	6,873	5,103	4,895	5,645	7,086	3,824	3,922	4,555	(B)
Service workers, including private household <sup>1</sup> .....	4,375	3,841	5,010	6,116	4,744	4,070	5,253	6,568	3,132	3,064	3,567	(B)
Barbers.....	4,743	4,730	4,948	(B)	4,958	4,791	5,097	(B)	3,344	(B)	(B)	(B)
Firemen, fire protection.....	5,887	5,292	6,095	(B)	5,894	5,247	6,108	(B)	(B)	(B)	(B)	(B)
Policemen and detectives.....	5,748	4,516	5,766	8,295	5,774	4,503	5,781	8,426	5,205	(B)	5,474	(B)
Farm laborers and foremen.....	2,090	2,313	3,539	(B)	2,375	2,416	3,621	(B)	1,375	1,632	(B)	(B)
Laborers, exc. farm and mine.....	3,765	3,879	4,661	5,447	4,130	4,070	4,881	5,735	2,960	3,186	3,671	(B)

B Base less than 1,000 persons.

<sup>1</sup> Includes other occupation groups, not shown separately.

Source: 1960 Census of Population, Subject Reports, Occupation by Earnings and Education, Series PC(2)-7B, table 1.



The patterns described for all workers applied to whites and nonwhites alike, with this major difference: nonwhites in every occupation earned far less than whites with the same amount of schooling. The fact is that in every major occupation except farming, nonwhite high school graduates on the average earned less than whites who did not go beyond the eighth grade. This pattern prevailed not only in the South, where discriminatory patterns are deeply entrenched and openly admitted, but also in the North where discrimination has been far more muted.

The relationship between earnings and age varies considerably by occupation. In most professional and managerial jobs—which tend to offer the greatest security and the best opportunities for advancement to positions of increasing responsibility—incomes tend to rise regularly until about age 50, when a plateau is reached and maintained until retirement. Workers in these jobs are generally paid annual salaries rather than weekly or hourly wages; thus their earnings are not diminished because of the periodic illnesses which frequently afflict older people.

Clerical workers, for many of the same reasons that apply to professionals, also tend to maintain their incomes as they approach retirement. Their peak, however, comes earlier—around age 40. The main reason that their earnings do not continue to increase between ages 40 and 50 (as in the case of professionals) is that opportunities for advancement are more limited.

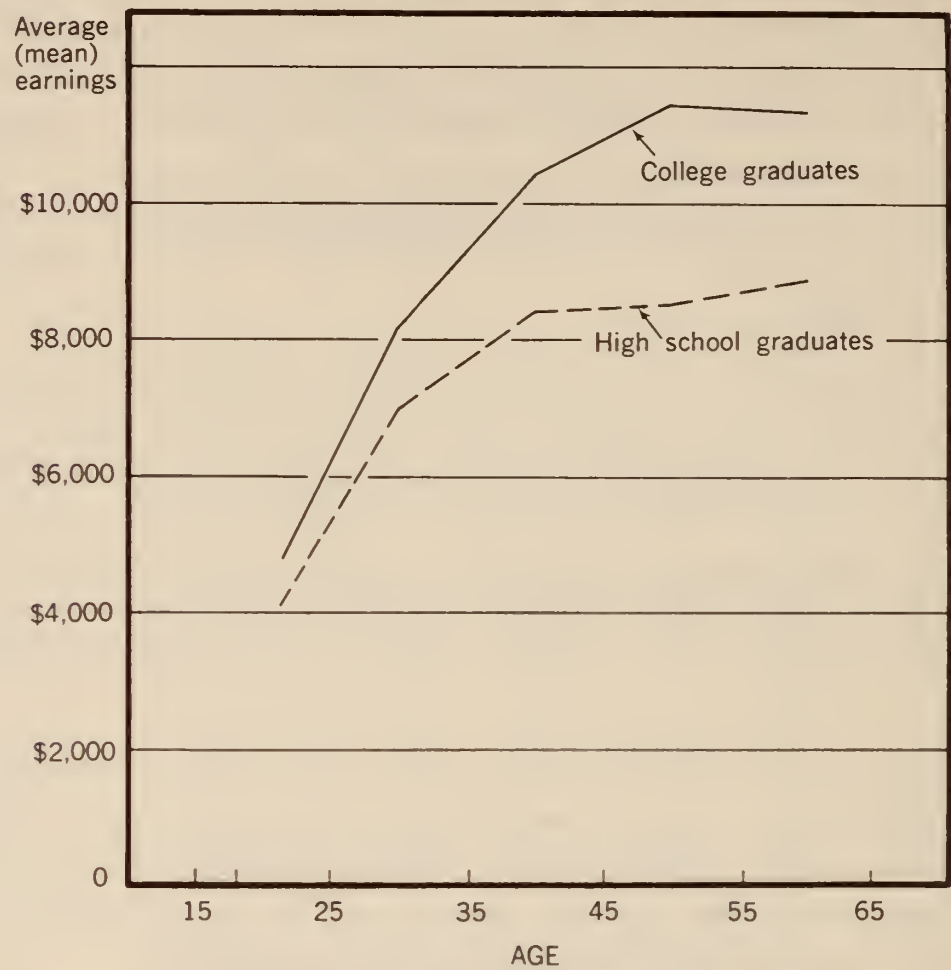
For craftsmen, operatives, and lower paid workers, earnings rise rapidly in the early years, reaching a peak when the men are around age 40, and showing a distinct tendency to decline in the older age groups.

The relationships just described are shown graphically in figures VI-2 to VI-5.

Figures for engineers who are college graduates show that their earnings rose by 70 percent (from \$4,800 to \$8,200) between the ages of 20 and 30, with an increase of 28 percent (to \$10,400) between ages 30 and 40, and a further rise of 10 percent (to \$11,500) by age 50. This peak was maintained until about age 60. The same general pattern was found for accountants, college professors and instructors, lawyers, natural and social scientists, and physicians. For dentists the earnings pattern differs significantly from that for other professions. Dentists had their peak earnings at age 40; during the next 10 years their average dropped by about 12 percent, and by age 60 their earnings were no higher than during the early years of practice. The decline in earnings with age in this occupation may be partly due to physical factors which cause an earlier reduction in work schedules than in most other professions.

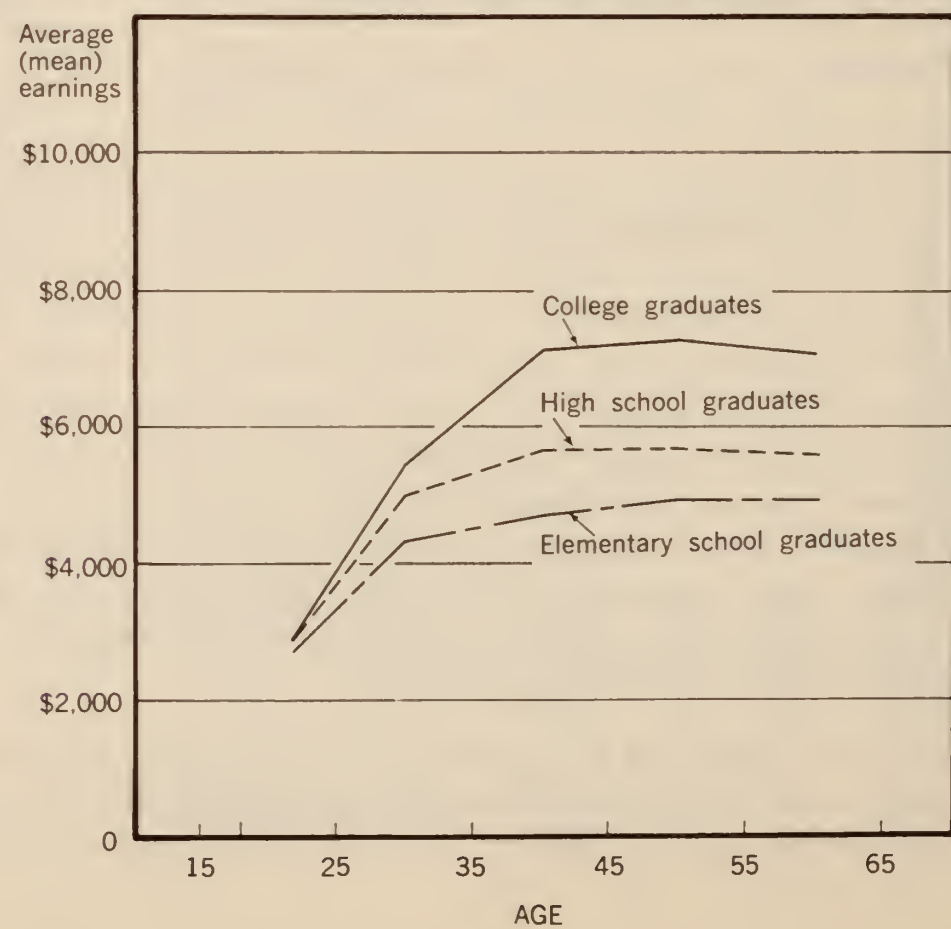
The pattern of earnings for managerial workers in public administration is about the same as that for other professional workers, although the earnings of managers and officials in private industry continued to increase to age 60.

Figure VI-2.—EARNINGS OF ENGINEERS, BY EDUCATION AND AGE: 1959



Source: 1960 Census of Population, Subject Reports, Occupation by Earnings and Education, Series PC(2)-7B, tables 1 and 4.

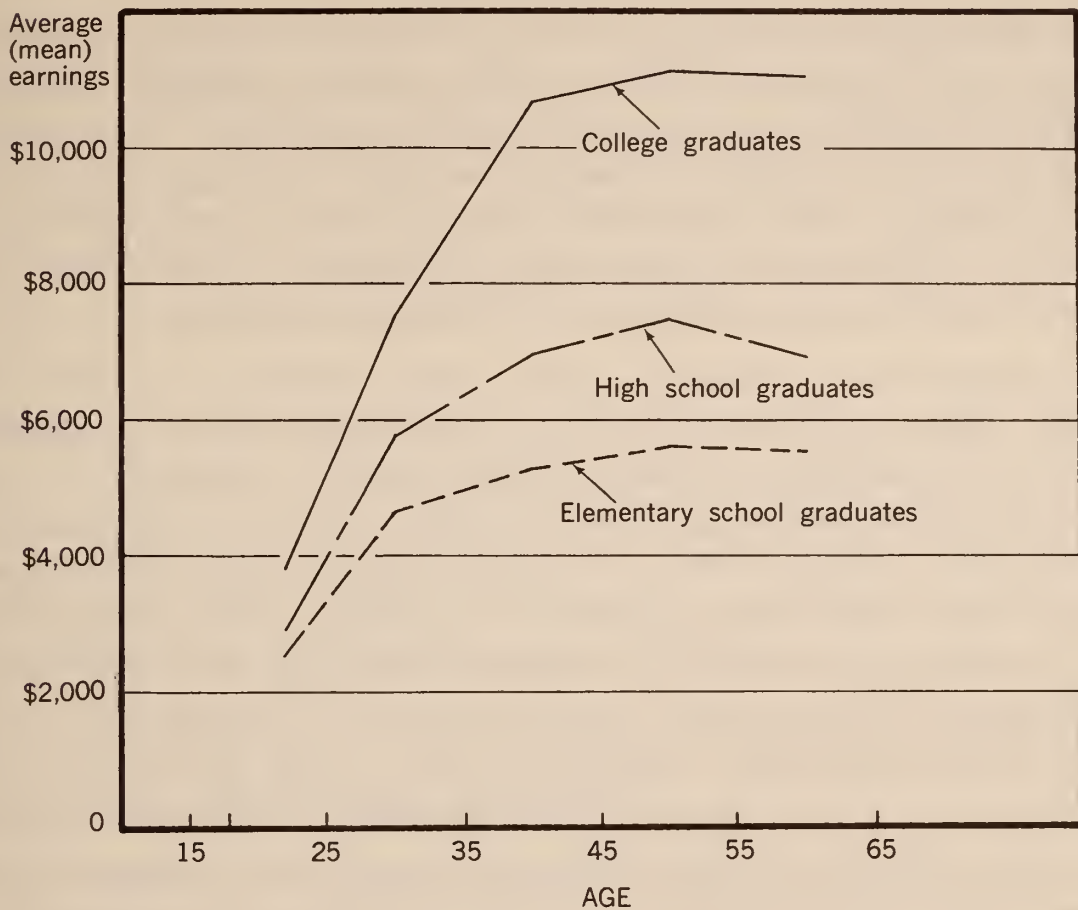
Figure VI-3.—EARNINGS OF CLERICAL WORKERS, BY EDUCATION AND AGE: 1959



Source: 1960 Census of Population, Subject Reports, Occupation by Earnings and Education, Series PC(2)-7B, tables 1 and 4.

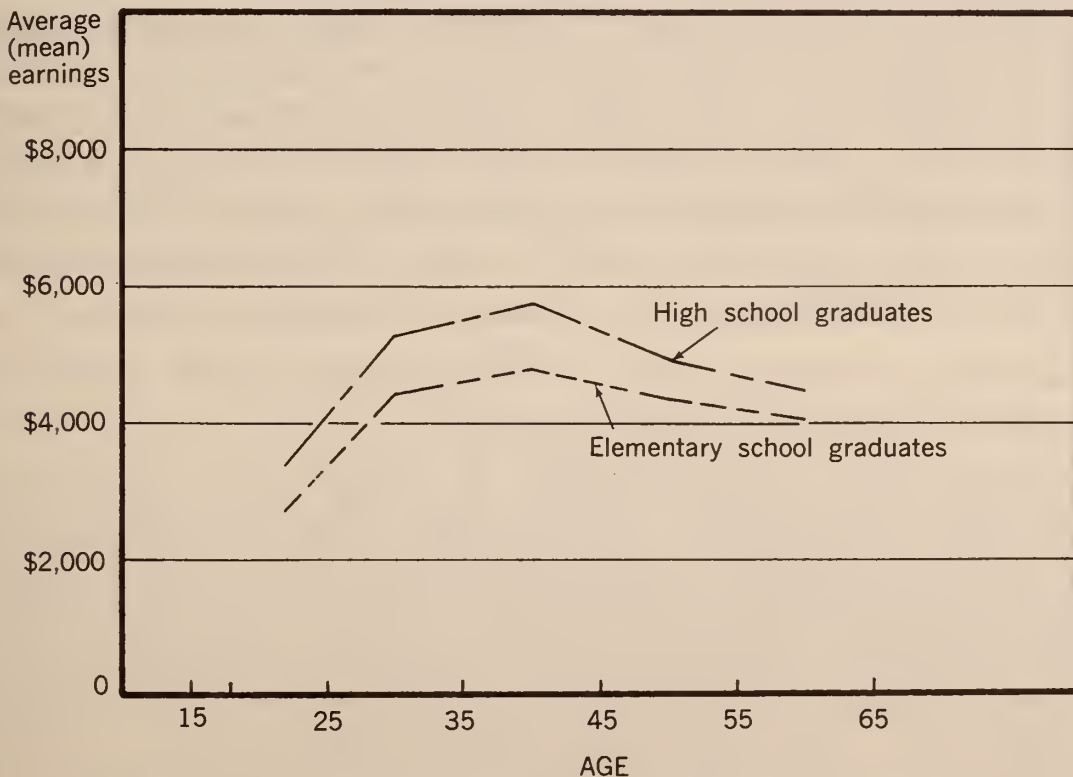


Figure VI-4.—EARNINGS OF SALESMEN AND SALES CLERKS (N.E.C.), BY EDUCATION AND AGE: 1959



Source: 1960 Census of Population, Subject Reports, Occupation by Earnings and Education, Series PC(2)-7B, tables 1 and 4.

Figure VI-5.—EARNINGS OF CARPENTERS, BY EDUCATION AND AGE: 1959



Source: 1960 Census of Population, Subject Reports, Occupation by Earnings and Education, Series PC(2)-7B, tables 1 and 4.

Among clerical workers who were high school graduates, earnings rose sharply (from \$3,000 to \$5,000) between ages 20 and 30, with a further rise of about \$700 between ages 30 and 40. The peak of \$5,700 reached at age 40 was maintained until retirement. This same general pattern applied to bank tellers, bookkeepers, mail carriers, and office machine operators. The earnings of postal clerks showed a slight tendency to rise in the older age groups. The earnings of shipping clerks, on the other hand, showed a distinct tendency to decline in the older age groups, reflecting the insecurity of employment among older people and their greater difficulty in finding reemployment.

The earnings of sales workers show only a slight tendency to decline as they grow older. Earnings of salesmen who were elementary school graduates rose progressively from \$2,600 at age 20, to \$4,600 at age 30. At age 40 their earnings averaged \$5,200, and at age 50, about \$5,600. This peak was maintained through age 60. Salesmen who were college graduates had about the same pattern, but their earnings were, of course, much higher. High school graduates also had a similar pattern, but their earnings fell off slightly about the age of 60.

The earnings of foremen behave very much like those of professional workers, but on a much lower level. Earnings rise until about age 50, when they reach a plateau which is maintained until retirement. Craftsmen, however—almost without exception—tended to experience declines in earnings once they had passed their fortieth birthday. For example, the mean earnings of carpenters who were high school graduates rose from \$5,400 at age 30, to \$5,700 at age 40; but those aged 50 earned only \$4,900 on the average; and those aged 60, only \$4,500. This pattern was more or less typical of most other occupations.

The reasons for the declines in earnings among craftsmen (and other blue-collar workers) are not hard to find. Payment in these occupations is typically on an hourly basis; not to work is not to earn. Furthermore, as men reach their fifties and sixties they tend to have more frequent illnesses, and as a result their earnings suffer. And in many of these occupations there is no tenure. Work on a construction project, for instance, lasts until the project is completed, after which a new job must be found. Where employers have a choice, they are often likely to select younger workers for the job.

The variation of earnings with age for operatives, service workers, and laborers was very similar to that for craftsmen.

*Changes since 1939.* The educational attainment of the population has increased considerably during the past 20 years. The proportion of college graduates has nearly doubled, and the proportion of high school graduates has also risen dramatically. Census data suggest that the increase in the relative supply of more highly educated workers has not had any marked effect on income differentials. The incomes of college graduates, in particular, do not appear to have gone down relative to other groups in the population, because



of the greater increase in their number, suggesting that the demand for their services has kept pace with the increased supply.

In 1949, Seymour Harris—noting the rapid rise in the extension of higher education—expressed concern lest the persistent increase in the supply of college-trained workers would so flood the market that college students within the next 20 years are doomed to disappointment after graduation, as the number of coveted openings will be substantially less than the numbers seeking them.<sup>15</sup> This concern, expressed by several other noted educators, including James B. Conant,<sup>16</sup> has not been borne out by the experience of the fifties and sixties.

Nonwhites in particular have experienced dramatic changes since World War II. Migration and technological change have altered the dominant role of the nonwhite from that of a southern farm wageworker or sharecropper to that of a low-paid industrial worker. In 1940, about three-fourths of all nonwhite males 14 years old and over lived in the South, where they were largely engaged in agricultural pursuits.<sup>17</sup> By 1950, the proportion residing in the South dropped to about two-thirds,<sup>18</sup> and in 1960 the proportion was slightly more than half.<sup>19</sup> Even in the South, nonwhites are now more concentrated in urban areas than ever before.

The figures on the occupational distribution of nonwhite males tell the story even more dramatically. In 1940, 4 out of every 10 employed nonwhite males in the United States worked either as laborers or sharecroppers on southern farms.<sup>20</sup> In 1960, fewer than 2 out of every 10 nonwhites were employed in agriculture, about half working as either unskilled or semiskilled workers at nonfarm jobs.<sup>21</sup> The change in the occupational status of nonwhites has been accompanied by a marked rise in educational attainment—proportionately far greater than for whites. Among men in the 25-to-29-year age group—and these are the ones most likely to have benefited from recent advances in education—the median years of school completed for nonwhites increased by about two-thirds, from 6.5 years in 1940, to 10.9 years in 1960. The increase for whites in the same age group was only about one-fifth, from 10.5 years in 1940 to 12.5 years. In 1940, the average young nonwhite male was about 4 years behind the average white in his schooling. This gap was narrowed to only 1½ years by 1960.

The most dramatic advances in schooling among nonwhites have come at the lower elementary grades. In 1940, one-third of the young nonwhite males had completed less than 5 years of school. This proportion has been reduced to only 8 percent and is largely responsible for the striking reduction in illiteracy among nonwhites.<sup>22</sup> Gains in education among nonwhites were by no means restricted to the lower grades. Since 1940, the proportion of high school graduates among young nonwhite men has risen fourfold, from 10 percent to 40 percent; and the proportion of college graduates has more than tripled.

In view of these very substantial increases in educational attainment, it is interesting to note the changes which have taken place in the association between education and income. In order to bring more light to bear on the subject, data from three decennial censuses and four Current Population Surveys covering the period 1939 to 1961 have been assembled as a time series. The basic results are shown in table VI-9, with derived measures presented in table VI-10.

Since neither the income concept nor the population is directly comparable for all the years shown, the figures in table VI-9 represent only rough measures of change. Except for 1939, however, most of the differences are relatively small and are not likely to distort relationships seriously.

For example, the figures for 1956, 1958, and 1961 are entirely comparable, since they are based on the Current Population Survey and represent the total money income of the civilian noninstitutional male population 25 years old and over. The 1959 figures are based on the 1960 Census, and represent total money earnings, and are restricted to males 25 to 64 years old. The 1949 figures are based on the 1950 Census and also represent the total money income of all males 25 years old and over, including a relatively small number of institutional inmates. The 1946 figures are based on the Current Population Survey and represent the total money earnings (not total income) of the civilian noninstitutional male population 25 years old and over. Although the conceptual differences between income and earnings are substantial, the actual differences in the averages are usually quite small. The figures for 1939 are based on the 1940 Census and are restricted to males 25 to 64 years of age with \$1 or more of wage or salary income and less than \$50 of nonwage income. For this group, of course, the averages represent total money income; however, the universe has been restricted, because of the way in which the data were collected, to those persons who received only wage or salary income. Only about three-fifths of all men 25 to 64 years old in 1940 were in this category. The effects of this restriction cannot be measured, but it is undoubtedly more important than restrictions cited for other years. It is also possible that the restriction affects college graduates more than persons with less schooling, since college graduates are more likely to have income other than earnings.<sup>23</sup>

The figures in table VI-10 suggest that elementary school graduates, despite the reduction in their relative numbers, had smaller relative income gains than high school graduates. In contrast, the income differential between high school and college graduates has remained fairly constant over time.

In the absence of 1939 income data for elementary school graduates, comparisons between the incomes of elementary and high school graduates must be restricted to the period since 1946. If attention is focused on these years, it is evident that the incomes of high school graduates have risen more rapidly than those of elementary school graduates. In 1946, the incomes of elementary school graduates were 79 percent of those received by high school graduates. This ratio dropped to 70 percent in 1956 and has remained at about the same



Table VI-9.—AVERAGE (MEAN) INCOME (OR EARNINGS) FOR MALES 25 YEARS OLD AND OVER, BY YEARS OF SCHOOL COMPLETED AND AGE, FOR SELECTED YEARS, 1939 TO 1961

Years of school completed and age	1961 <sup>1</sup>	1959 <sup>2</sup>	1958 <sup>1</sup>	1956 <sup>1</sup>	1949 <sup>1</sup>	1946 <sup>2</sup>	1939 <sup>3</sup>
25 YEARS OLD AND OVER							
Elementary: Total.....	\$3,544	(NA)	\$3,043	\$3,041	\$2,394	\$2,041	\$1,036
Less than 8 years.....	2,998	(NA)	2,530	2,574	2,062	1,738	(NA)
8 years.....	4,206	(NA)	3,677	3,631	2,829	2,327	(NA)
High school: 1 to 3 years.....	5,161	(NA)	4,452	4,367	3,226	2,449	(NA)
4 years.....	5,946	(NA)	5,257	5,183	3,784	2,939	(NA)
College: 1 to 3 years.....	7,348	(NA)	6,272	5,997	4,423	3,654	(NA)
4 years or more.....	9,817	(NA)	8,643	7,877	6,179	4,527	(NA)
25 TO 34 YEARS OLD							
Elementary: Total.....	3,504	(NA)	3,128	3,127	2,185	1,729	837
Less than 8 years.....	3,053	3,225	2,665	2,653	1,880	1,394	(NA)
8 years.....	4,032	4,197	3,638	3,671	2,540	2,011	(NA)
High school: 1 to 3 years.....	4,683	4,783	4,266	4,392	2,837	2,062	1,150
4 years.....	5,357	5,361	4,768	4,774	3,246	2,335	1,335
College: 1 to 3 years.....	5,781	5,849	5,373	5,329	3,444	2,875	1,566
4 years or more.....	7,481	7,053	6,718	5,884	4,122	3,237	1,956
35 TO 44 YEARS OLD							
Elementary: Total.....	4,203	(NA)	3,601	3,673	2,610	2,095	1,110
Less than 8 years.....	3,697	3,658	3,007	3,132	2,244	1,730	(NA)
8 years.....	4,792	4,730	4,243	4,224	3,029	2,425	(NA)
High school: 1 to 3 years.....	5,360	5,500	4,850	4,762	3,449	2,607	1,574
4 years.....	6,411	6,398	5,665	5,668	4,055	3,463	1,979
College: 1 to 3 years.....	8,081	7,846	7,191	6,698	5,014	4,069	2,270
4 years or more.....	10,327	10,863	8,927	9,009	7,085	5,054	3,141
45 TO 54 YEARS OLD							
Elementary: Total.....	4,226	(NA)	3,563	3,587	2,797	2,349	1,199
Less than 8 years.....	3,561	3,759	2,952	3,037	2,418	2,027	(NA)
8 years.....	5,013	4,904	4,210	4,168	3,247	2,629	(NA)
High school: 1 to 3 years.....	5,593	5,719	4,669	4,728	3,725	2,959	1,732
4 years.....	6,624	6,691	5,802	5,746	4,689	3,744	2,256
College: 1 to 3 years.....	8,497	8,604	7,390	7,155	5,639	4,671	2,428
4 years or more.....	11,735	13,313	11,198	10,499	8,116	5,242	3,575
55 TO 64 YEARS OLD							
Elementary: Total.....	4,118	(NA)	3,409	3,295	2,577	2,082	1,057
Less than 8 years.....	3,446	3,810	2,953	2,877	2,278	1,814	(NA)
8 years.....	4,794	4,840	3,874	3,879	3,010	2,365	(NA)
High school: 1 to 3 years.....	5,708	5,762	4,791	4,217	3,496	2,648	1,551
4 years.....	6,374	6,824	5,934	5,659	4,548	3,179	2,104
College: 1 to 3 years.....	7,836	8,610	6,842	6,227	5,162	3,888	2,065
4 years or more.....	10,375	13,089	10,637	8,737	7,655	5,461	3,247
65 YEARS OLD AND OVER							
Elementary: Total.....	2,226	(NA)	1,886	1,865	1,560	1,541	(NA)
Less than 8 years.....	1,985	(NA)	1,652	1,670	1,366	1,434	(NA)
8 years.....	2,617	(NA)	2,326	2,229	1,898	1,670	(NA)
High school: 1 to 3 years.....	3,408	(NA)	2,541	2,537	2,379	1,894	(NA)
4 years.....	3,735	(NA)	2,869	3,232	3,115	2,601	(NA)
College: 1 to 3 years.....	5,863	(NA)	3,766	4,019	3,435	2,720	(NA)
4 years or more.....	8,650	(NA)	5,431	5,394	5,421	3,902	(NA)

NA Not available.

<sup>1</sup> Total money income.

<sup>2</sup> Total money earnings.

<sup>3</sup> Restricted to persons reporting \$1 or more of wage or salary income and less than \$50 of other income for native white and Negro males 25 to 64 years old only.

<sup>4</sup> Base less than 100 sample cases.

Source: Data for 1946, 1956, 1958, and 1961, derived from the consumer income supplements to the April 1947, March 1957, March 1959, and March 1962, Current Population Survey. Data for 1959 derived from *1960 Census of Population, Subject Reports, Occupation by Earnings and Education*, Series PC(2)-7B. Data for 1949 derived from *1950 Census of Population*, Series P-E, No. 5B, *Education*, tables 12 and 13. Data for 1939 derived from *1940 Census of Population, Education: Educational Attainment by Economic Characteristics and Marital Status*, tables 29 and 31.

Table VI-10.—AVERAGE (MEAN) INCOME (OR EARNINGS) DIFFERENTIAL BETWEEN MALE ELEMENTARY, HIGH SCHOOL AND COLLEGE GRADUATES, BY AGE, FOR SELECTED YEARS, 1939 TO 1961

Age and year	Elementary-high school differential			High school-college differential		
	Mean income		Ratio	Mean income		Ratio
	Elementary school graduates	High school graduates		High school graduates	College graduates	
ALL AGES						
1961.....	\$4,206	\$5,946	71	\$5,946	\$9,817	61
1959.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958.....	3,677	5,257	70	5,257	8,643	61
1956.....	3,631	5,183	70	5,183	7,877	66
1949.....	2,829	3,784	75	3,784	6,179	61
1946.....	2,327	2,939	79	2,939	4,527	65
1939.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
25 TO 34 YEARS						
1961.....	4,032	5,357	75	5,357	7,481	72
1959.....	4,197	5,361	78	5,361	7,053	76
1958.....	3,638	4,768	76	4,768	6,718	71
1956.....	3,671	4,774	77	4,774	5,884	81
1949.....	2,540	3,246	78	3,246	4,122	79
1946.....	2,011	2,335	86	2,335	3,237	72
1939.....	(NA)	1,335	(NA)	1,335	1,956	68
35 TO 44 YEARS						
1961.....	4,792	6,411	75	6,411	10,327	62
1959.....	4,730	6,398	74	6,398	10,863	59
1958.....	4,243	5,665	75	5,665	8,927	63
1956.....	4,224	5,668	75	5,668	9,009	63
1949.....	3,029	4,055	75	4,055	7,085	57
1946.....	2,425	3,463	70	3,463	5,054	69
1939.....	(NA)	1,979	(NA)	1,979	3,141	63
45 TO 54 YEARS						
1961.....	5,013	6,624	76	6,624	11,735	56
1959.....	4,904	6,691	73	6,691	13,313	50
1958.....	4,210	5,802	73	5,802	11,198	52
1956.....	4,168	5,746	73	5,746	10,499	55
1949.....	3,247	4,689	69	4,689	8,116	58
1946.....	2,629	3,744	70	3,744	5,242	71
1939.....	(NA)	2,256	(NA)	2,256	3,575	63
55 TO 64 YEARS						
1961.....	4,794	6,374	75	6,374	10,375	61
1959.....	4,840	6,824	71	6,824	13,089	52
1958.....	3,874	5,934	65	5,934	10,637	56
1956.....	3,879	5,659	69	5,659	8,737	65
1949.....	3,010	4,548	66	4,548	7,655	59
1946.....	2,365	3,179	74	3,179	5,461	58
1939.....	(NA)	2,104	(NA)	2,104	3,247	65
65 YEARS AND OVER						
1961.....	2,617	3,735	70	3,735	8,650	43
1959.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958.....	2,326	2,869	81	2,869	5,431	53
1956.....	2,229	3,232	69	3,232	5,394	60
1949.....	1,898	3,115	61	3,115	5,421	57
1946.....	1,670	2,601	64	2,601	3,902	67
1939.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

Source: Table VI-9.

level. The greater relative gains for high school graduates is in part related to the fact that a large proportion of the men with less schooling are employed in occupations such as farmers, farm laborers, and nonfarm laborers, which tended to have lower relative income gains than most other occupations.



It is also possible, of course, that even for occupations such as operatives and craftsmen, in which a relatively large number of elementary school graduates are employed, high school graduates received relatively greater increases than persons who never attended high school. There is also a possibility that the reduction in the relative number of elementary school graduates reflects a constant transfer of the "cream" of that group to the high school group, so that the average elementary school graduate in 1961 may have been a less "able" person than his counterpart in 1946; but there is no objective evidence on this point.

There is some evidence that college graduates have made greater relative gains than high school graduates during the postwar years. In 1946 the income of high school graduates was 65 percent of that received by college graduates. By 1958 this ratio had dropped to 61 percent and has remained at that level. The data suggest that during the recession years, 1949 and 1958, the incomes of college graduates were less affected than the incomes of other groups—meaning perhaps that it was harder for those with lesser education to get or hold jobs.

Why is it that the relative income differential between high school and college graduates has been maintained, and indeed increased, despite the large relative increase in the size of the college-trained population? One important part of the explanation must be that the demand for college graduates has kept pace with the supply. Due to our changing technology, the demand for trained workers has accelerated since the end of World War II, and industry has absorbed the increased flow of graduates from the universities. The nature of this change shows up most clearly in the sharp rise in the proportion of the labor force engaged in professional and managerial work. These two occupations, in which the great majority of college graduates are employed, serve as the major outlet for men with college training. Between 1940 and 1960, as may be seen from table VI-11, the proportion of men employed in these occupations rose from 15.6 to 21.0 percent, an increase of more than one-third.

Table VI-11.—NUMBER AND PERCENT OF MALES EMPLOYED IN PROFESSIONAL AND MANAGERIAL OCCUPATIONS: 1960, 1950, AND 1940  
[Numbers in thousands]

Major occupation group	1960	1950	1940	Percent distribution		
				1960	1950	1940
Total employed males.....	43,467	40,662	33,892	100.0	100.0	100.0
Professional, technical, and kindred workers.....	4,479	2,970	2,082	10.3	7.3	6.1
Managers, officials, and proprietors, except farm.....	4,630	4,357	3,243	10.7	10.7	9.6

Source: 1960 Census of Population, Vol. I, Characteristics of the Population, Part 1, U.S. Summary, chapter C, table 89.

Lifetime income and education

*Changes since 1939.* The general method used to estimate lifetime income and some of the limitations of the figures were described earlier in this chapter.<sup>24</sup> Table VI-12, which follows, shows how estimated lifetime income has changed since 1939 for men with different amounts of schooling. Before these data are discussed, several cautions must be noted.

First, because of changes in the income concept, the figures are not exactly comparable from year to year. The data for 1939 are for wages and salaries; for 1946 and 1959, the data represent earnings; and for 1949, 1956, 1958, and 1961, they represent total money income. These variations in concept may have some impact on changes over time. A second, and more general consideration,

Table VI-12.—ESTIMATED LIFETIME INCOME (EARNINGS) BASED ON ARITHMETIC MEANS FOR MALES IN SELECTED AGE GROUPS, BY YEARS OF SCHOOL COMPLETED, FOR SELECTED YEARS, 1939 TO 1961

[In thousands]

Years of school completed and age	1961 <sup>1</sup>	1959 <sup>2</sup>	1958 <sup>1</sup>	1956 <sup>1</sup>	1949 <sup>1</sup>	1946 <sup>2</sup>	1939 <sup>3</sup>
INCOME FROM AGE 18 TO DEATH							
Elementary: Total.....	\$176	(NA)	\$152	\$153	\$113	(NA)	(NA)
Less than 8 years.....	151	(NA)	129	131	98	(NA)	(NA)
8 years.....	205	(NA)	178	179	133	(NA)	(NA)
High school: 1 to 3 years.....	235	(NA)	204	202	152	(NA)	(NA)
4 years.....	273	(NA)	242	244	185	(NA)	(NA)
College: 1 to 3 years.....	334	(NA)	287	278	209	(NA)	(NA)
4 years or more.....	453	(NA)	402	373	296	(NA)	(NA)
INCOME FROM AGE 25 TO DEATH							
Elementary: Total.....	165	(NA)	142	142	105	\$87	(NA)
Less than 8 years.....	142	(NA)	120	122	91	74	(NA)
8 years.....	191	(NA)	166	166	123	99	(NA)
High school: 1 to 3 years.....	222	(NA)	192	189	142	108	(NA)
4 years.....	256	(NA)	227	228	175	136	(NA)
College: 1 to 3 years.....	323	(NA)	277	268	202	162	(NA)
4 years or more.....	435	(NA)	386	359	287	202	(NA)
INCOME FROM AGE 18 TO 64							
Elementary: Total.....	157	(NA)	136	137	100	(NA)	\$40
Less than 8 years.....	135	\$143	115	117	87	(NA)	(NA)
8 years.....	182	184	158	159	117	(NA)	(NA)
High school: 1 to 3 years.....	206	212	182	180	132	(NA)	57
4 years.....	241	247	218	216	159	(NA)	71
College: 1 to 3 years.....	284	293	255	243	181	(NA)	78
4 years or more.....	379	417	355	325	251	(NA)	110
INCOME FROM AGE 25 TO 64							
Elementary: Total.....	146	(NA)	125	125	92	74	37
Less than 8 years.....	125	131	106	107	80	62	(NA)
8 years.....	169	169	146	146	107	85	(NA)
High school: 1 to 3 years.....	193	197	170	166	122	92	53
4 years.....	224	228	202	199	149	114	67
College: 1 to 3 years.....	273	278	244	232	173	139	74
4 years or more.....	361	397	339	311	241	169	105

NA Not available.

<sup>1</sup> Total money income.

<sup>2</sup> Total money earnings.

<sup>3</sup> Restricted to persons reporting \$1 or more of wage or salary income and less than \$50 of other income for native white and Negro males.

Source: Data for 1959 and 1961 are based on unpublished estimates of the Bureau of the Census. Data for 1939, 1946, and 1949 are from Herman P. Miller, "Annual and Lifetime Income in Relation to Education: 1939 to 1959," *American Economic Review*, December 1960; and data for 1956 and 1958 are revisions of estimates previously published in this article.



is the fact that the estimates reflect the economic conditions and other circumstances that existed in each of the years for which data are shown. Some of the differences from year to year may reflect changes in these circumstances. For example, the increase in the value of a college education by about \$140,000, between 1949 and 1961, reflects the increase in prices as well as changes in the underlying relationships.

In every year for which data are presented, additional schooling is associated with a very substantial increase in lifetime income. On the basis of conditions in 1961, a man with less than 8 years of schooling could expect to earn about \$151,000 in a lifetime. Graduation from elementary school would add \$54,000 to his expected earnings. Similarly, a man with 1 to 3 years of high school could expect to earn \$235,000 over a lifetime, compared with a total of \$273,000 for the high school graduate. Financial returns prove greatest, as might be expected, at the college level. The man with some college training, but without a degree, could expect to earn about one-third of a million dollars in a lifetime, whereas the total for the college graduate was nearly half a million.

No dramatic changes have taken place in these relationships during the past 20 years. Table VI-13 shows that throughout the postwar period, elementary school graduates could expect incomes that averaged about three-fourths of those received by high school graduates. The income expectations of high school graduates averaged between 57 and 67 percent of those of college graduates.

Table VI-13.—ESTIMATED LIFETIME INCOME (EARNINGS) OF MALES 25 TO 64 YEARS OLD, BY YEARS OF SCHOOL COMPLETED, FOR SELECTED YEARS, 1939 TO 1961  
[In thousands]

Year	Elementary-high school differential			High school-college differential		
	Elementary school graduates	High school graduates	Ratio	High school graduates	College graduates	Ratio
1961.....	\$169	\$224	75	\$224	\$361	62
1959.....	169	228	74	228	397	57
1958.....	146	202	72	202	339	60
1956.....	146	199	73	199	311	64
1949.....	107	149	72	149	241	62
1946.....	85	114	75	114	169	67
1939.....	(NA)	67	(NA)	67	105	64

NA Not available.

Source: Table VI-12.

*Variations by color and occupation.* A nonwhite man who has not gone beyond the eighth grade has very little chance of being anything more than a laborer, porter, or factory hand. At the time of the 1960 Census, nearly 8 out of every 10 nonwhite men with only 8 grades of schooling worked as laborers, service workers, or operatives, whereas among whites with equivalent education less than half worked at these low-paid jobs.

The nonwhite high school graduate stands a somewhat better chance of getting a well-paid job; but even his chances are not very good. About 6 out of every 10 nonwhite high school graduates were laborers, service workers, or operatives, compared with only 3 out of 10 whites with equal schooling.

Nonwhite college graduates seem able to find professional employment in relatively large numbers. In 1960, about 3 out of 4 were professional or managerial workers—nearly the same proportion as for white college graduates. But there is one big difference: nonwhites were concentrated in the lower paid professions. One-third of the male nonwhite college graduates in professional employment were school teachers, compared with only one-sixth of the whites. Moreover, earnings of nonwhites in the low-paid professions were considerably below those of whites. Relatively few nonwhites are in the higher paid professions. About 20 percent of white male college graduates in professional employment were engineers, compared with only 8 percent of the nonwhites; 14 percent of the whites were lawyers or accountants, but only 6 percent of the nonwhites. Among doctors there were proportionately as many nonwhites as whites, but the average earnings of the nonwhites were only half that of the whites.

Nonwhite men earn less than whites with the same number of years of schooling for at least two reasons: first, they are employed in lower paid jobs; and second, they are paid less even when they are doing the same kind of work. The combined impact of these two factors is shown in table VI-15, which presents figures on the lifetime earnings of white and nonwhite men by years of school completed. Figures are shown for the years 1939, 1949, and 1959 to provide a measure of change in the relationship over time.

Table VI-14.—PERCENT DISTRIBUTION OF MALES 18 TO 64 YEARS OLD, BY MAJOR OCCUPATION GROUP, BY YEARS OF SCHOOL COMPLETED, AND COLOR: 1960

Major occupation group	White			Nonwhite		
	Elementary school graduates	High school graduates	College graduates	Elementary school graduates	High school graduates	College graduates
Number.....thousands..	5,736	10,082	4,071	488	609	145
Percent.....	100	100	100	100	100	100
Professional and managerial workers.....	9	21	77	3	7	72
Farmers and farm managers.....	9	5	1	3	2	1
Clerical and sales workers.....	8	20	15	4	16	13
Craftsmen, foremen, and kindred workers..	28	25	4	13	15	4
Operatives and kindred workers.....	29	20	1	31	27	4
Service workers.....	6	5	1	17	18	5
Laborers.....	11	5	1	29	16	2

Source: 1960 Census of Population, Subject Reports, Occupation by Earnings and Education, Series PC(2)-7B.

Table VI-15 shows that although there has been some reduction in income differentials between the two groups during the past 20 years, substantial differentials remain. In 1949 and in 1959 the relative earnings gap between whites and nonwhites tended to increase with educational attainment. The lifetime earnings estimate for nonwhite elementary school graduates in 1959 was about 64 percent of the figure for whites. Among college graduates, the estimated lifetime earnings of nonwhites was about half as great as that of the whites.

There are some regional differentials in these figures, but they are not great. Appendix E shows that the southern nonwhite college graduate might expect to earn about \$154,000 in his lifetime. The southern white who completed only



the eighth grade can expect to earn about 8 percent more (\$167,000). In the Northern and Western States, where earnings are considerably higher than in the South, the nonwhite male with 4 years of college can expect to earn only slightly more in a lifetime (\$209,000) than the white elementary school graduate (\$198,000).

Variations in expected lifetime earnings by color, region, and years of school completed are shown in appendix E for about 90 different occupations. Since in all important respects the relationships exhibited by these data parallel those previously described—which are based on the variations in earnings by age in 1959—it is unnecessary to restate the findings based on the estimated lifetime data.

Table VI-15.—ESTIMATED LIFETIME INCOME (EARNINGS) BASED ON ARITHMETIC MEANS FOR MALES 18 TO 64 YEARS OLD, BY YEARS OF SCHOOL COMPLETED AND COLOR: 1959, 1949, AND 1939  
[In thousands. Earnings from age 18 to 64 years]

Years of school completed	1959 <sup>1</sup>			1949 <sup>2</sup>			1939 <sup>3</sup>		
	White	Non-white	Non-white as percent of white	White	Non-white	Non-white as percent of white	White	Non-white	Non-white as percent of white
Total.....	\$241	\$122	51	\$139	\$64	46	\$56	\$21	38
Elementary: Less than 8 years..	157	95	61	95	54	57	(NA)	(NA)	(NA)
8 years.....	191	123	64	119	71	60	(NA)	(NA)	(NA)
High school: 1 to 3 years.....	221	132	60	140	76	54	58	25	43
4 years.....	253	151	60	162	85	52	73	31	42
College: 1 to 3 years.....	301	162	54	184	88	48	79	33	42
4 years or more....	427	215	50	255	117	46	112	41	37

NA Not available.  
<sup>1</sup> Total money earnings.  
<sup>2</sup> Total money income.  
<sup>3</sup> Restricted to persons reporting \$1 or more of wage or salary income and less than \$50 of other income for native white and Negro males.  
  
Source: Data for 1959 from appendix E and for 1939 and 1949 from Herman P. Miller, "Income and Education: Does Education Pay Off?" *Economics of Higher Education*, Office of Education, 1962.

## NOTES

<sup>1</sup> Edward F. Denison, *The Sources of Economic Growth in the United States*, Supplementary Paper No. 13, Committee for Economic Development, 1962.

<sup>2</sup> Alice M. Rivlin, "Research in the Economics of Higher Education: Progress, and Problems," *Economics of Higher Education*, Office of Education, 1962, p. 361.

<sup>3</sup> Women have been excluded from the analysis. Since a large proportion do not enter the labor market, and many of those who do are employed on a part-time basis only, the relation between their income and education may be distorted. In contrast, since practically all adult men are full-time workers, it can be assumed that any advantages which may accrue from more schooling will be reflected in their incomes.

<sup>4</sup> Donald S. Bridgman, *The Duration of Formal Education for High-Ability Youth*, National Science Foundation, NSF 61-36.

<sup>5</sup> See for example, Gary S. Becker, "Underinvestment in College Education," *American Economic Review Proceedings*, May 1960, Vol. 50, p. 348; and Edward F. Renshaw, "Estimating the Returns to Education," *The Review of Economics and Statistics*, Vol. XLII, August 1960, p. 322.

<sup>6</sup> Theodore W. Schultz, "Education and Economic Growth," *Social Forces Influencing American Education*, Sixtieth Yearbook of the National Society for the Study of Education, 1961.

<sup>7</sup> Mary Jean Bowman, "Human Capital: Concepts and Measures," *Economics of Higher Education*, Office of Education, 1962.

<sup>8</sup> See Donald S. Bridgman, "Problems in Estimating the Monetary Value of College Education"; and Dael Wolfle, "Economics and Educational Values," in *Higher Education in the United States*, Seymour E. Harris, editor; and Ernest Havemann and Patricia West, *They Went to College*, New York, 1952, p. 164.

<sup>9</sup> Calvin F. Schmid, *Impact of Recent Negro Migration on Seattle Schools*. Paper presented at International Population Conference, Vienna, 1959.

<sup>10</sup> This formulation is based on Burton A. Weisbrod, *External Benefits of Public Education* (Princeton University: Industrial Relations Section), 1964, p. 47. It is considerably different from the procedure used to estimate lifetime income in the present report, where no account was taken of the proportion of persons with income ( $W_n$ ), and no attempt was made to discount the streams of income to their present values. The problem is discussed here in its broader aspects in order to present some of the difficulties associated with this type of analysis.

<sup>11</sup> H. S. Houthakker, "Education and Income," *Review of Economics and Statistics*, Harvard University Press, Cambridge, Mass., February 1959, p. 27.

<sup>12</sup> Burton A. Weisbrod, "Preventing High School Dropouts—A Benefit Cost Analysis." Mimeograph of paper presented at Brookings Institution Conference on Government Investment Expenditures, Washington, D.C., November 1963.

<sup>13</sup> Educational Policies Commission, *Education and Economic Well-Being in American Democracy*, National Education Association and American Association of School Administration, Washington, D.C., 1940.

<sup>14</sup> Although this discussion is presented in terms of arithmetic means, the same kind of analysis could be made in terms of the medians shown in the report from which tables VI-2 to 4 were derived. The general picture would not differ much, particularly below the college level, where there is not much difference between means and medians, largely because persons who lack college training do not have ready access to the highest paying jobs. For college graduates, there is a substantial difference between the means and medians, although all the general patterns described above on the basis of the arithmetic means remain unchanged. Some analysts contend that the median is a more useful measure than the mean because it is less affected by extreme values at the upper end of the distribution and more nearly shows what the "typical" individual may expect to receive. To some extent the usage here may be a matter of taste. From a strictly mathematical viewpoint, however, the arithmetic mean is the preferable measure since medians should



## NOTES—Continued

not be treated algebraically. Often, of course, medians are used in the absence of means and they are treated as though they behave like means. This usage may be justified as a basis for providing rough measures where accurate estimates of the mean cannot be made or are too costly to compute. Mathematical considerations aside, the use of the median as a representative value for the "typical" individual is based on the implicit assumption that a particular point in a frequency distribution can be used to make inferences for the individual case. It says, in effect, that the "average" individual is more likely to receive the "average" income (i.e., the income of the middlemost person in a distribution) than the mean income which is weighted by the high incomes of a relatively small number of people. If the use of the median is intended to serve this purpose, it is incorrect since the frequency distribution is essentially a probability statement and no single point on that distribution is more valid for a given case than any other point. In view of these considerations, only means are shown in all tables in this chapter containing basic data. The derived measures and text discussions are also presented in terms of the means.

<sup>15</sup> Seymour E. Harris, *The Market for College Graduates*, Cambridge, Mass., 1949, p. 64.

<sup>16</sup> James B. Conant, *Education in a Divided World*, Cambridge, Mass., 1948, p. 198.

<sup>17</sup> U.S. Bureau of the Census, *1950 Census of Population—Preliminary Reports*, Series PC-7, No. 2.

<sup>18</sup> Ibid.

<sup>19</sup> Data underlying various *Current Population Reports*, Series P-20.

<sup>20</sup> U.S. Bureau of the Census, *1950 Census of Population—Preliminary Reports*, Series PC-7, No. 2.

<sup>21</sup> U.S. Bureau of Labor Statistics, *Employment and Earnings*, May 1960.

<sup>22</sup> U.S. Bureau of the Census, *Current Population Reports*, Series P-20, No. 99.

<sup>23</sup> The general method used to compute the means is described in appendix B. For each year, the mean income was obtained as a summation of the product of the average income and the proportion of persons for each income level. The midpoint was assumed to be the average for income levels below \$10,000 in 1949, 1956, 1958, 1959, and 1961; below \$6,000 for 1946; and below \$5,000 for 1939. For 1958, 1959, and 1961, an average of \$12,000 was used for the \$10,000 to \$14,999 interval; \$19,000 was used for the \$15,000 to \$24,999 interval; and the average for \$25,000-and-over interval was estimated by fitting a Pareto curve to the data. For 1956, \$12,000 was used as the average for the \$10,000 to \$14,999 interval, and \$17,000 was used as the average for the \$15,000-and-over interval. For 1949, the average for the \$10,000-and-over interval was estimated by fitting a Pareto curve to the data. For 1946, \$12,000 was used for the \$6,000-and-over interval; and for 1939, \$9,000 was used for the \$5,000-and-over interval.

<sup>24</sup> See appendix E for additional detail regarding the estimating procedure.





## APPENDIX A

# EVALUATION OF CENSUS INCOME DATA

### Sources of data for evaluation

One of the outstanding innovations in the 1950 Censuses of Population and Housing was an intensive effort to evaluate the statistics. This included a reinterview survey, record checks, an enumerator variance survey, and numerous other studies made for the purpose of measuring the quality of the data and discovering methods of improving future censuses and household surveys. These studies led to major changes in the methods used in the 1960 Census, and there is general agreement that for most subjects, including income, the 1960 data are more accurate than those collected 10 years earlier. The evaluation effort was intensified in 1960. The present chapter summarizes the findings of the various income evaluation studies conducted in 1960, including, wherever possible, comparisons with 1950. The following are brief descriptions of the major sources of data that were used.

*Office of Business Economics (OBE) estimates.* The Office of Business Economics of the Department of Commerce prepares annual estimates of gross national product, national income, and other related measures comprising the national income accounts. Primary emphasis in this series is placed on aggregates, although in recent years size distributions have been prepared for families and unrelated individuals. These distributions are conceptually and statistically consistent with the national income accounts. The aggregates have been published annually since the early forties and are generally regarded as one of the most important and most accurate of all statistical series prepared by the Federal Government.

Most projects in the 1950 and 1960 Census evaluation programs required the collection of additional data with which the original census results could be compared, or which would in other ways throw light on possible biases or other shortcomings of the data. The OBE estimates, however, provided a readily available basis for comparison with census results. At relatively little expense, OBE adjusted its published figures to provide estimates that were directly comparable with the census figures. The data were prepared for each State for 1949 and 1959 for total income, wages and salaries, self-employment income, and income other than earnings.

The size distributions of families and unrelated individuals published by OBE are not directly comparable with those based on the censuses. In contrast to the aggregates, it was not possible for OBE to prepare revised distributions on a comparable basis. A discussion of the problems of comparability, and the results of an attempt to place the two series on a comparable basis, is discussed later in this chapter.

*Current Population Survey (CPS).* Each year since 1944, the Bureau of the Census has published income data derived from the annual income supplement to the Current Population Survey (CPS). This survey is conducted each month by direct interview of a scientifically selected sample of about 35,000 households representing the entire civilian noninstitutional population. It provides current information on employment, unemployment, and related data published each month by the Department of Labor. At various times during the year the regular labor force survey is supplemented by additional inquiries designed to provide statistics on special problems. Once each year, usually in March, questions relating to income received during the preceding calendar year are added to the survey. These questions are generally asked in a subsample of about 26,000 households. The income concept used in the CPS is identical with that used in the past two decennial censuses. There are, however, substantial differences in the collection procedures.

For 1950 and 1960, a subsample of persons who were asked to report income information in both the Census and the CPS was identified and a comparison of their responses was made. An analysis was, therefore, possible not only in terms of averages and overall distributions, but also for the matched sample of persons who were asked to provide information independently in both samples. The matched sample provides two different measures of income for the same year for each person, collected on the average about one month apart. It provides some insight into the reasons for the difference between CPS data and the census returns, although it must be recognized that the estimate provided in the census may in some cases have been conditioned by the response given one month earlier in the CPS.

*Reinterview surveys.* Several months after the completion of the field work in the 1950 and 1960 Censuses, a reinterview survey was conducted to obtain income and other information which had also been sought in the census. The purpose of the reinterview survey was to provide a quality check of the information originally obtained in the censuses. Therefore, the enumerators were specially selected, paid premium rates, and given intensive training by members of the Washington staff in the use of a very detailed questionnaire. This type of quality check has, however, several serious limitations. In the first place, the replies of some respondents in the reinterview survey may have been influenced by the answers they gave on the Census questionnaire. Moreover, despite the more detailed questions used in the reinterview survey, the replies provided by the respondents may not be more accurate than the information originally obtained in the census because the surveys were conducted about six to eight months after the end of the calendar year to which the data pertained.



In the 1950 Census, a relatively large proportion of the evaluation resources were put into this type of quality check. The results were useful enough so that the procedure was used again in the 1960 Census, but on a much reduced scale for the subject-matter items.

*Internal Revenue Service and BOASDI records.* In the 1950 and 1960 Censuses an attempt was made to compare the income data obtained in the census for given individuals with comparable information available on the tax returns and on wage records of the Bureau of Old-Age, Survivors, and Disability Insurance. For 1950, a sample of census returns was selected and an attempt was then made to locate the records for that sample in the files of IRS and BOASDI.<sup>1</sup> For 1960, the procedure was reversed and a sample of tax returns was first selected and then matched with census returns. The results of this study had not yet been tabulated at the time the present study was prepared. The BOASDI comparison for 1960 was restricted to a sample of persons 65 years old and over who were receiving BOASDI payments.

Even if it were possible to match fully a sample of census returns with tax returns or BOASDI wage records, the results would not provide a conclusive evaluation of the quality of the census income data. The wage records probably represent the most accurate source of information on wages and salaries; but this type of income is relatively well reported in the census and it is self-employment income and income other than earnings that are most in need of verification. Little insight into the quality of these data can be obtained from a BOASDI record match.

Tax returns are the only source of information that, theoretically at least, should contain complete income figures, with relatively minor exceptions, for the great majority of people in the United States. For this reason they are often regarded as an excellent basis for the evaluation of census results. It must be recognized, however, that tax returns contain certain shortcomings which seriously limit their usefulness for this purpose. In the first place, an audit control program conducted by Internal Revenue Service agents has shown that unaudited tax returns tend to contain underestimates of income.<sup>2</sup> Independent comparisons of aggregates based on tax returns with comparable OBE estimates suggest that this underreporting could amount to as much as 10 to 15 percent of the total.<sup>3</sup> This factor in itself invalidates the use of the tax return as an accurate factual statement with which the household report can be compared and places major limitations on the conclusions that can be reached.

A second limitation of Census-IRS matching studies stems from the fact that tax returns for 1949 could not be found for a large proportion of persons for whom census reports were available. Many of the unmatched cases undoubtedly represented persons whose incomes were below the tax-filing requirement; but there was no way to distinguish these cases from the failure to match for other reasons. The difficulties encountered in the tax-matching study for 1950 led to a change in procedures for 1960, whereby tax returns were used as the sampling frame and an attempt was made to locate Census reports for a representative sample of tax returns.

A final limitation of Census-IRS matching studies is that the same income concept is not used in both sources, and there is no way of making the data entirely comparable in this respect because the census obtains one global total for income other than earnings. In the analysis of the results for 1949 an attempt was made to tabulate the data in such a way as to bring them into approximate agreement, but there is no certainty that this effort was entirely successful.

### **Comparison of Census and OBE aggregates and distributions**

*Overall estimates of aggregates, by type of income: 1949 and 1959.* The aggregate income estimates published by OBE are the most comprehensive income figures published by the Federal Government. They are based largely on data derived from business and governmental sources including industrial and population censuses, employees' wage reports under the Social Security program, and records of disbursements to individuals by governmental agencies. Because of the great care and effort that go into the compilation of these data, and their unique position as a cornerstone of the statistical program of the Federal Government, they provide an excellent basis for the evaluation of the income figures collected in the decennial censuses and the annual household surveys.

The Census and OBE aggregates are not directly comparable in the form in which they are published. Therefore, certain adjustments are required to put them on a comparable basis. The census figures represent total money income which is defined as the algebraic sum of money wages and salaries, net income from self-employment, and income other than earnings. More detailed classifications within each of these types of income were not used in the decennial censuses. Income other than earnings includes Social Security payments; veterans' payments and other government or private pensions; interest, dividends, and income from annuities, estates, or trusts; net income from boarders or lodgers or from renting property to others; and other types of income including unemployment or sickness benefits, public assistance, alimony, military dependency allotments, and other periodic income other than earnings.

The OBE estimates of personal income are prepared in great detail with respect to income classification, and they can be adjusted by adding and subtracting components to make them conceptually comparable with the money income figures collected in the censuses and household surveys. These adjustments, made by OBE, include the following subtractions from the published OBE figures: gross value of food and fuel consumed on farms, gross rental value of farm homes, net rental value of nonfarm owner-occupied homes, wages in kind, imputed interest (representing the value of free services to individuals by banks and the property of life insurance companies), the value of farm inventory change, and the noncorporate inventory valuation adjustment. The following items were added by OBE to the published OBE estimates: personal contributions for social insurance, estimated net income from roomers and boarders in private homes, and periodic payments received by consumer units from life insurance companies.



Although the adjustments described above bring the two series into approximate agreement with respect to the income concept, the results should be interpreted as close approximations rather than precise measures. Some of the adjustments could not be made very precisely by OBE due to the lack of data. The inflation of the Census income distributions is also subject to some error of estimation. Finally, the OBE figures also have shortcomings, although they are believed to be subject to only a small margin of error.

A comparison of Census and OBE estimates of aggregate income by type of income for 1949 and 1959 is shown in table A-1. CPS data for the same years are also shown in this table, in order to provide a general background against which the overall census results may be compared. The 1960 Census aggregates for persons were obtained directly from the information reported by respondents except for the open-end interval of \$25,000 and over, where an average of \$50,000 was used. The 1960 Census aggregates for families and unrelated individuals were estimated from frequency distributions in which the following assumptions were used: for each \$1,000 level below \$10,000, the midpoint was used as the average; \$12,000 for the \$10,000 to \$14,999 level; \$19,000 for \$15,000 to \$24,999; and a Pareto curve was used to estimate the average for the open-end interval of \$25,000 and over. In preparing the 1950 Census data for persons and for families and unrelated individuals, the midpoint was assumed to be the mean for income intervals under \$7,000; \$8,200 was used for \$7,000 to \$9,999; and a Pareto curve was fitted to the open-end interval of \$10,000 and over to obtain the mean.

Table A-1.—CENSUS, CPS, AND OBE ESTIMATES OF AGGREGATE INCOME IN 1959 AND 1949, BY TYPE OF INCOME

[In billions]

Year and type of income	Estimates of aggregate income				Ratio of Census to OBE		Ratio of CPS to OBE
	OBE Total popu- lation, all ages	Census		CPS Persons 14 years old and over <sup>2</sup>	Persons 14 years old and over	Families and un- related indi- viduals	
		Persons 14 years old and over	Families and unrelateu individuals <sup>1</sup>				
1959							
Total income.....	\$351.4	\$331.7	\$332.3	\$306.7	94	95	87
Wage or salary income.....	249.1	246.5	(NA)	233.5	99	(NA)	94
Self-employment income.....	42.2	47.9	(NA)	38.3	114	(NA)	91
Income other than earnings..	60.1	37.3	(NA)	32.7	62	(NA)	54
1949							
Total income.....	191.0	173.2	155.2	159.8	91	81	84
Wage or salary income.....	128.8	<sup>3</sup> 124.3	(NA)	120.0	97	(NA)	93
Self-employment income.....	31.3	<sup>3</sup> 31.1	(NA)	26.5	99	(NA)	85
Income other than earnings..	30.9	<sup>3</sup> 16.6	(NA)	13.3	54	(NA)	43

NA Not available.

<sup>1</sup> Includes income of persons 14 years old and over residing in households.

<sup>2</sup> Persons 14 years old and over, excluding institutional inmates and members of Armed Forces living on base.

<sup>3</sup> These estimates are based on preliminary sample tabulations rather than on final results because the final data do not contain distributions of each type of income. The aggregate total income estimated from the preliminary sample is in close agreement with the comparable aggregate estimated from the final data.

Source: Data for 1959 from table A-3; and data for 1949 are revisions of estimates which originally appeared in Herman P. Miller, *Income of the American People*, Wiley, 1955, p. 152.

Census aggregates are shown for both persons and for families and unrelated individuals because there were important procedural differences in the preparation of these estimates in the 1950 and 1960 Censuses. These are explained below. CPS aggregates are shown for persons only. Aggregates for families and unrelated individuals were also prepared, but they do not differ appreciably from those shown in table A-1. The CPS data for 1949 were prepared in exactly the same way as described above for the 1950 Census data. In preparing the CPS aggregates for 1959, the midpoint was assumed to be the mean for intervals below \$8,000; \$8,900 for \$8,000 to \$9,999; \$12,000 for \$10,000 to \$14,999; \$19,000 for \$15,000 to \$24,999; and a Pareto curve was fitted to the open-end interval of \$25,000 and over.

In the 1960 Census a 25-percent sample of households was selected, and each person 14 years old and over was asked to report the amount received from wages and salaries, self-employment income, and income other than earnings. Family income was obtained by combining the incomes of all family members. Therefore, the aggregates based on reports for persons and for families and unrelated individuals would be more or less the same, as they are.

In the 1950 Census, a somewhat different procedure was used, resulting in marked discrepancies between the aggregates for persons and families. In 1950, information on income, similar to that described for 1960, was obtained from a 20-percent sample of persons 14 years old and over. If the sample person was the head of a family, the income questions were repeated for other family members *as a group* in order to obtain the income for the entire family. In tabulating the family income from the 1950 Census, it was assumed that there was no other income in the family when only the head's income was reported. Because of the collection procedure used in the 1950 Census, and the treatment of cases where income information was not reported for family members other than the head, there were marked discrepancies between aggregates based on distributions for persons and those based on families and individuals, as shown in table A-1.

The 1950 Census aggregates based on the persons data represented 91 percent of the OBE estimate, compared with only 82 percent for the family data. As previously noted, there was no significant difference in 1959 between the aggregates based on persons and families. This evidence suggests that the family income data in the 1960 Census are more accurate than those collected 10 years earlier, primarily because of the use in 1960 of a household schedule in which income was reported separately for each member of the family.

A comparison of the Census and OBE estimates by type of income in table A-1 shows very close agreement for wages and salaries but evidence of substantial underreporting of income other than earnings in the census. In the 1950 Census, the wage and salary aggregate amounted to 97 percent of the OBE estimate; in 1960 it was 99 percent. The 1950 Census estimate of income other than earnings, on the other hand, amounted to only 54 percent of the OBE estimate; for 1960 it was 62 percent. In each case the Census



estimate was in closer agreement with OBE than were the CPS figures; and there was also a substantial reduction in underreporting from one census to the next.

One peculiarity in the 1960 Census data is that the estimate of self-employment income exceeded the OBE figure, whereas the corresponding CPS figure was below OBE. There is at present no satisfactory explanation for this difference, although several hypotheses can be offered. It is possible that the CPS estimates for this item represent better reporting than in the census, if it is assumed that many respondents reported gross income from self-employment in the census and net income in CPS. The reason for such an assumption is that in the CPS enumerators might detect the tendency and correct it, whereas no such correction would have been made in 1960 because of the extensive use of self-enumeration.

*Aggregate income by State: 1949 and 1959.* Table A-2 shows for each region, geographic division, and State, the percent of the OBE estimate of total money income in 1949 and 1959 that was covered in the 1950 and 1960 Censuses. The Census figures were prepared by using the procedures previously described. The independent estimates were prepared by OBE and are conceptually the same as the census data.

It is important to recognize that discrepancies between the Census and OBE estimates are more likely to exist for component areas like States than for the country as a whole. This is generally the case where a total is disaggregated into its component parts. It represents a particular problem here because it was necessary for OBE to make some adjustments in the data at the State level on the basis of factors available only for the country as a whole. Moreover, the basic records from which the OBE estimates are prepared show income on a "where earned" basis, and adjustments are required to show the estimates on a residence basis. Some errors must be expected in an adjustment procedure of this type.

In view of the qualifications described above, there is surprising agreement between the 1960 Census and OBE estimates for most States. The Census figures were less than 90 percent of the OBE estimate in only 4 States. Three of these States were located in the West North Central Division—Missouri (89 percent), North Dakota (88 percent), and South Dakota (85 percent). The fourth State was Delaware, with 80 percent. No State was appreciably over the 100-percent mark.

Agreement between Census and OBE estimates of aggregate income improved in all regions and in all geographic divisions between 1949 and 1959. In each region, the improvement was from 2 to 4 percentage points. In both censuses, the Northeast and North Central States had greater underreporting of income, on the average, than the South or the West. Indeed, despite the improvement in the more recent census, underreporting of income in the Northern States in 1960 was reduced to a level reached in the South and the West 10 years earlier.

Table A-2.—TOTAL MONEY INCOME IN CENSUS AS A PERCENT OF THE COMPARABLE OBE ESTIMATE IN 1959 AND 1949, BY REGIONS, DIVISIONS, AND STATES

Region, division, and State	1959	1949	Region, division, and State	1959	1949
United States.....	94	91	WEST NORTH CENTRAL--Con.		
REGIONS:			North Dakota.....	88	94
Northeast.....	92	88	South Dakota.....	85	91
North Central.....	94	90	Nebraska.....	91	89
South.....	96	94	Kansas.....	98	94
West.....	96	93	SOUTH ATLANTIC:		
NORTHEAST:			Delaware.....	80	72
New England.....	93	87	Maryland.....	94	91
Middle Atlantic.....	91	88	District of Columbia....	92	89
NORTH CENTRAL:			Virginia.....	99	99
East North Central.....	94	90	West Virginia.....	92	92
West North Central.....	93	91	North Carolina.....	94	97
SOUTH:			South Carolina.....	96	97
South Atlantic.....	95	94	Georgia.....	97	93
East South Central.....	96	94	Florida.....	98	97
West South Central.....	95	93	EAST SOUTH CENTRAL:		
WEST:			Kentucky.....	98	96
Mountain.....	97	95	Tennessee.....	96	94
Pacific.....	95	92	Alabama.....	96	95
NEW ENGLAND:			Mississippi.....	93	90
Maine.....	92	89	WEST SOUTH CENTRAL:		
New Hampshire.....	100	89	Arkansas.....	93	94
Vermont.....	92	86	Louisiana.....	95	89
Massachusetts.....	92	89	Oklahoma.....	100	98
Rhode Island.....	92	82	Texas.....	95	93
Connecticut.....	92	86	MOUNTAIN:		
MIDDLE ATLANTIC:			Montana.....	91	89
New York.....	90	87	Idaho.....	98	101
New Jersey.....	96	92	Wyoming.....	91	95
Pennsylvania.....	92	88	Colorado.....	95	94
EAST NORTH CENTRAL:			New Mexico.....	97	100
Ohio.....	94	90	Arizona.....	102	93
Indiana.....	96	90	Utah.....	99	95
Illinois.....	93	89	Nevada.....	94	95
Michigan.....	95	91	PACIFIC:		
Wisconsin.....	96	93	Washington.....	98	94
WEST NORTH CENTRAL:			Oregon.....	95	94
Minnesota.....	97	96	California.....	95	91
Iowa.....	94	90	Alaska.....	101	(NA)
Missouri.....	89	87	Hawaii.....	103	(NA)

NA Not available.

Source: Tables A-3 and A-5.

Among the geographic divisions, the Mountain States had the most complete reporting in the 1950 and 1960 Censuses, with 95 percent and 97 percent of the total, respectively. The New England and Middle Atlantic States had the poorest reporting in both censuses. The Census estimates in 1959 for each of the divisions in the South and West were 95 to 97 percent of the OBE figures.

At the State level, the percent of aggregate income reported in the census improved in 38 States, was unchanged in 2 States, and declined in 9 States. Comparisons could not be made for Alaska and Hawaii because independent estimates were not available for the 1950 Census. The poorest relative reporting occurred in Delaware which had 72 percent of the OBE estimate in the 1950 Census, and 80 percent in 1960.



Table A-3 shows that in most States there is substantial agreement between the Census and OBE estimates of 1959 wages and salaries, and marked disagreement between the estimates of income other than earnings. The self-employment income estimates behave very erratically and in most States Census figures exceed the OBE by a wide margin. Some of these differences may be due to the fact that the concepts used are not identical. The self-employment income comparison provides at best only a very rough measure of the extent of agreement between these two series.

The similarity of the wage and salary figures is understandable. This type of income is received fairly regularly and can be estimated by respondents without too much difficulty. It tends, therefore, to be well reported in household surveys. Since the great bulk of wages and salaries is recorded in BOASDI wage records, the OBE estimate, which is based largely on these records, would also be very reliable. It is not surprising, therefore, that the estimates for this type of income do not differ by more than 4 percentage points in any geographic division, deviating by more than this amount in only 8 States.

The figures on income other than earnings were obtained in response to a single question in the census. The concept, however, includes many different types of income that are not regularly received. For this reason, they are believed to be poorly reported in the census. The OBE estimates, however, are thought to be quite accurate because record data are available for such items as interest, dividends, pensions, and transfer payments, which comprise most of this type of income. The census figures represent about two-thirds of the total in the Southern and Western States, 61 percent in the North Central Region, and only 55 percent in the Northeast. This type of income was most poorly reported in Delaware (37 percent), and was also quite low in Rhode Island (50 percent), and New York (51 percent). The most complete reporting was in Arizona (89 percent).

The item most difficult to understand in table A-3 is self-employment income. This type of income tends to be underreported in the annual income surveys conducted by the Bureau of the Census; yet, the Census estimates far exceed the OBE totals. The household survey figures for self-employment income have always been regarded as very poor, involving, as they do, an attempt to obtain a rather complex total in response to a single question. For this reason there is some uncertainty regarding the precise meaning of responses obtained for this type of income in the census. The two sets of figures seem to be in much closer agreement where the self-employment estimates represent income from farming than from the operation of a business. Thus, for example, the Census figures exceed the OBE estimates by 27 percent in the New England and Middle Atlantic States where the figures largely represent income from the operation of a nonfarm business. Within these divisions, the Census figures exceed those of the OBE by 34 percent in Massachusetts, 32 percent in Connecticut, 30 percent in New York, and 25 percent in Pennsylvania. All are heavily industrial States with relatively small amounts of income from farming.

Table A-3.—CENSUS AND OBE ESTIMATES OF AGGREGATE MONEY INCOME IN 1959, BY TYPE OF INCOME, BY REGIONS, DIVISIONS, AND STATES  
[Millions of dollars]

Region, division, and State	Census			OBE			Ratio of Census to OBE			
	Total income	Wage or salary income	Self-employment income	Income other than earnings	Total income	Wage or salary income	Self-employment income	Income other than earnings	Total income	Income other than earnings
United States.....	\$331,658	\$246,490	\$47,875	\$37,293	\$353,057	\$249,849	\$42,583	\$60,625	94	112
REGIONS:										
Northeast.....	93,462	71,615	11,754	10,093	101,867	74,223	9,220	18,424	92	127
North Central.....	97,935	73,297	14,391	10,247	104,501	74,580	13,113	16,808	94	110
South.....	80,913	58,661	12,471	9,781	84,628	58,190	11,802	14,636	96	106
West.....	59,348	42,917	9,259	7,172	62,061	42,856	8,448	10,757	96	110
NORTHEAST:										
New England.....	21,227	16,209	2,494	2,524	22,907	16,541	1,933	4,433	93	129
Middle Atlantic.....	72,235	55,406	9,260	7,569	78,960	57,682	7,287	13,991	91	127
NORTH CENTRAL:										
East North Central.....	71,985	55,685	9,159	7,141	76,489	56,885	7,879	11,725	94	116
West North Central.....	25,950	17,612	5,232	3,106	28,012	17,695	5,234	5,083	93	100
SOUTH:										
South Atlantic.....	40,220	29,852	5,432	4,936	42,126	29,538	5,125	7,463	95	106
East South Central.....	14,894	10,731	2,414	1,749	15,474	10,628	2,283	2,563	96	106
West South Central.....	25,799	18,078	4,625	3,096	27,028	18,024	4,394	4,610	95	105
WEST:										
Mountain.....	12,141	8,437	2,250	1,454	12,556	8,423	2,062	2,071	97	109
Pacific.....	47,207	34,480	7,009	5,718	49,505	34,433	6,386	8,686	95	110
NEW ENGLAND:										
Maine.....	1,466	1,077	188	201	1,590	1,062	186	342	92	101
New Hampshire.....	1,089	827	129	133	1,094	779	102	213	100	126
Vermont.....	590	417	90	83	639	425	87	127	92	103
Massachusetts.....	10,557	8,137	1,190	1,230	11,435	8,326	885	2,224	92	98
Rhode Island.....	1,563	1,204	173	186	1,698	1,203	124	371	92	100
Connecticut.....	5,962	4,547	724	691	6,451	4,746	549	1,156	92	96
MIDDLE ATLANTIC:										
New York.....	37,533	28,455	5,163	3,915	41,843	30,259	3,976	7,608	90	130
New Jersey.....	13,708	10,719	1,669	1,320	14,332	10,754	1,376	2,202	96	121
Pennsylvania.....	20,994	16,232	2,428	2,334	22,785	16,669	1,935	4,181	92	125
EAST NORTH CENTRAL:										
Ohio.....	18,990	14,878	2,205	1,907	20,240	15,258	1,878	3,104	94	117
Indiana.....	8,544	6,595	1,123	826	8,860	6,680	976	1,204	96	99
Illinois.....	21,991	16,955	2,895	2,141	23,727	17,625	2,511	3,591	93	115
Michigan.....	15,173	11,923	1,790	1,460	16,057	12,016	1,536	2,505	95	117
Wisconsin.....	7,287	5,334	1,146	807	7,605	5,306	978	1,321	96	101
WEST NORTH CENTRAL:										
Minnesota.....	5,919	4,190	1,042	687	6,129	4,124	937	1,068	97	102
Iowa.....	4,543	2,933	1,069	541	4,815	2,840	1,050	925	94	103
Missouri.....	7,562	5,472	1,187	903	8,544	5,833	1,204	1,507	89	94
North Dakota.....	859	465	290	104	980	512	308	160	88	91



[Millions of dollars]

## EVALUATION OF CENSUS INCOME DATA

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Region, division, and State	Census			OBE			Ratio of Census to OBE			
	Total income	Wage or salary income	Self-employment income	Income other than earnings	Total income	Wage or salary income	Self-employment income	Income other than earnings	Total income	Wage or salary income
WEST NORTH CENTRAL—Con.										
South Dakota.....	\$902	\$503	\$281	\$118	\$1,062	\$519	\$355	\$188	85	97
Nebraska.....	2,298	1,437	575	286	2,536	1,479	583	474	91	97
Kansas.....	3,867	2,612	788	467	3,946	2,388	797	761	98	109
SOUTH ATLANTIC:										
Delaware.....	931	726	101	104	1,161	789	91	281	80	92
Maryland.....	6,210	4,872	735	603	6,574	4,964	586	1,024	94	98
District of Columbia.....	1,836	1,398	174	264	1,990	1,338	182	470	92	104
Virginia.....	6,341	4,965	741	635	6,434	4,821	623	521	99	103
West Virginia.....	2,564	1,949	273	342	2,791	2,030	240	940	92	96
North Carolina.....	5,704	4,271	870	563	6,099	4,238	921	940	94	101
South Carolina.....	2,722	2,088	368	266	2,833	2,024	365	444	96	103
Georgia.....	5,358	3,992	762	604	5,530	3,968	737	825	97	101
Florida.....	8,554	5,591	1,408	1,555	8,714	5,366	1,380	1,968	98	104
PAST SOUTH CENTRAL:										
Kentucky.....	4,016	2,810	709	497	4,104	2,756	586	762	98	102
Tennessee.....	4,702	3,456	739	507	4,878	3,468	631	779	96	100
Alabama.....	4,070	3,039	572	459	4,229	3,011	578	640	96	101
Mississippi.....	2,106	1,426	394	286	2,263	1,393	488	382	93	102
WEST SOUTH CENTRAL:										
Arkansas.....	2,010	1,288	414	308	2,165	1,284	491	390	93	100
Louisiana.....	4,460	3,173	692	595	4,699	3,254	606	839	95	98
Oklahoma.....	3,757	2,534	718	505	3,759	2,407	651	701	100	105
Texas.....	15,572	11,083	2,801	1,688	16,405	11,079	2,646	2,680	95	100
MOUNTAIN:										
Montana.....	1,132	711	273	148	1,245	725	288	232	91	98
Idaho.....	1,073	683	263	127	1,099	680	235	184	98	100
Wyoming.....	622	419	130	73	686	432	127	127	91	97
Colorado.....	3,313	2,296	592	425	3,475	2,302	515	658	95	100
New Mexico.....	1,521	1,096	271	154	1,568	1,103	258	207	97	99
Arizona.....	2,298	1,610	377	311	2,247	1,546	353	348	102	104
Utah.....	1,510	1,133	111	144	1,523	1,119	191	213	99	101
Nevada.....	672	489	111	72	713	516	95	102	94	95
PACIFIC:										
Washington.....	5,801	4,177	906	718	5,889	4,124	710	1,055	98	101
Oregon.....	3,448	2,404	617	427	3,629	2,389	599	641	95	101
California.....	36,269	26,561	5,288	4,420	38,341	26,648	4,930	6,763	95	100
Alaska.....	511	416	56	39	504	403	41	60	101	103
Hawaii.....	1,178	922	142	114	1,142	869	106	167	103	106

Source: Census data computed from 1960 Census of Population, Vol. I, Characteristics of the Population, Part 1, U.S. Summary, table 86. OBE data prepared by the Office of Business Economics.

In contrast, the Census and OBE figures were in complete agreement in the West North Central Region, which includes the breadbasket of America, and differed by only 5 to 6 percent in the Southern States, where self-employment income probably also largely represents returns from farm operations. It appears therefore that the major discrepancy between the Census and OBE self-employment estimates centers in income from nonfarm self-employment.

Both the CPS and the Census estimates show some improvement relative to the OEE totals between 1949 and 1959. One possible reason for this improvement is the increased importance of wages and salaries as a part of total income. This type of income rose from 67 percent of the total in 1949 to 71 percent in 1959. Since wages and salaries are much more completely reported in the censuses than is unearned income, this change alone—other things being equal—would result in a reduction in the underreporting of income in the census.

In table A-4 an attempt is made to ascertain whether there is any relationship between the improvement shown for each State and the change in the relative

Table A-4.—WAGE OR SALARY INCOME IN 1959 AND 1949 AS A PERCENT OF TOTAL MONEY INCOME, BY REGIONS, DIVISIONS, AND STATES

Region, division, and State	1959	1949	Region, division, and State	1959	1949
United States.....	71	67	WEST NORTH CENTRAL:		
REGIONS:			Minnesota.....	67	61
Northeast.....	73	72	Iowa.....	59	47
North Central.....	71	67	Missouri.....	68	64
South.....	69	64	North Dakota.....	52	43
West.....	69	64	South Dakota.....	49	41
NORTHEAST:			Nebraska.....	58	50
New England.....	72	71	Kansas.....	61	54
Middle Atlantic.....	73	72	SOUTH ATLANTIC:		
NORTH CENTRAL:			Delaware.....	68	65
East North Central.....	74	72	Maryland.....	76	71
West North Central.....	63	56	District of Columbia.....	67	73
SOUTH:			Virginia.....	75	72
South Atlantic.....	70	68	West Virginia.....	73	76
East South Central.....	69	63	North Carolina.....	69	64
West South Central.....	67	60	South Carolina.....	71	68
WEST:			Georgia.....	72	67
Mountain.....	67	60	Florida.....	62	60
Pacific.....	70	65	EAST SOUTH CENTRAL:		
NEW ENGLAND:			Kentucky.....	67	63
Maine.....	67	65	Tennessee.....	71	65
New Hampshire.....	71	68	Alabama.....	71	66
Vermont.....	67	64	Mississippi.....	62	52
Massachusetts.....	73	72	WEST SOUTH CENTRAL:		
Rhode Island.....	71	70	Arkansas.....	59	52
Connecticut.....	74	72	Louisiana.....	69	62
MIDDLE ATLANTIC:			Oklahoma.....	64	57
New York.....	72	71	Texas.....	68	61
New Jersey.....	75	75	MOUNTAIN:		
Pennsylvania.....	73	73	Montana.....	58	53
EAST NORTH CENTRAL:			Idaho.....	62	57
Ohio.....	75	72	Wyoming.....	63	63
Indiana.....	75	71	Colorado.....	66	58
Illinois.....	74	71	New Mexico.....	70	58
Michigan.....	75	75	Arizona.....	69	60
Wisconsin.....	70	67	Utah.....	73	69
			Nevada.....	72	64
			PACIFIC:		
			Washington.....	70	66
			Oregon.....	66	63
			California.....	70	65

Source: Derived from tables A-3 and A-5.



importance of wages and salaries in that State. It is quite clear that although such a relationship does exist in most cases, there are many important exceptions. For example, each of the Middle Atlantic States shows a reduction in the underreporting of income between the 1950 and 1960 Censuses, but no appreciable change in the ratio of wages and salaries to total income. The same was true for Massachusetts and Michigan. In these cases, at least, it appears that the improvement resulted from other factors than the reweighting of the components of income. A check was made to see if the substitution procedure used in the 1960 Census was in any way responsible for the improvement in each of the above States. The check was made by estimating an aggregate for persons reporting on income, before substitution for nonresponse, using the data shown in *1960 Census of Population, Detailed Characteristics, Final Report, PC(1)*, table D-1 for each State.

In each case it was found that the substitution procedure had no major impact on the results. In Connecticut, for example, the aggregate based on the published figures (i.e., after allocation for nonresponse using computer techniques) was \$6.0 billion, whereas the estimate based on cases reporting on income, using a substitution procedure similar to the one employed in 1950, was somewhat higher, \$6.2 billion. In other words the more refined substitution procedure introduced in the 1960 Census tended to lower the aggregate, implying that income nonrespondents in the census had characteristics associated with lower-than-average income recipients. Similar results were obtained for New York, New Jersey, Pennsylvania, Massachusetts, and Michigan.

Table A-5 was prepared primarily to show for each State the difference between the estimates of aggregate total money income obtained in the 1950 Census from the data for families and unrelated individuals and from the data for persons. The only figures previously shown were national totals. In every State the aggregate based on the data for persons exceeds that based on the family figures. Most of the differences were in the neighborhood of 10 percentage points. For 38 of the States, the aggregates for persons exceeded the family figures by 8 to 11 percentage points. In only 1 State, Vermont, was the difference less than 5 percentage points.

*Comparability of Census and OBE income distributions.* Although the trends exhibited by the Census and OBE income distributions are very similar (see chapter I), the level of the Census data is far below that of OBE. Some of this difference is more apparent than real and is due to the use of different income concepts in the two series. But, even when rough allowance is made for this fact, the difference in level remains substantial.

Table A-6 shows 1959 income distributions for families and unrelated individuals based on three sources: OBE, the 1960 Census, and the March 1960 CPS. These figures clearly show that the greatest differences between the OBE and the Census data occur at the extremes of the distribution. The 1960 Census data show 13.6 million families and individuals with total money income under \$2,000, compared with 12.1 million in the March 1960 CPS, and 7.5 million

Table A-5.—OBE ESTIMATES OF TOTAL MONEY INCOME IN 1949 BY TYPE, AND 1950 CENSUS ESTIMATES OF TOTAL MONEY INCOME IN 1949 BASED ON FIGURES FOR FAMILIES AND UNRELATED INDIVIDUALS AND PERSONS 14 YEARS OLD AND OVER, BY REGIONS, DIVISIONS, AND STATES

[Millions of dollars]

Region, division, and State	OBE				Census			
	Total income	Wage or salary income	Self- employ- ment income	Income other than earnings	Income of families and unrelated individuals		Income of persons 14 years old and over	
					Total	Percent of OBE	Total	Percent of OBE
United States.....	\$190,737	\$128,561	\$31,254	\$30,922	\$156,094	82	\$173,261	91
REGIONS:								
Northeast.....	58,343	41,963	6,549	9,831	45,719	78	51,320	88
North Central.....	60,047	40,223	11,068	8,756	49,099	82	54,341	90
South.....	44,045	28,325	8,247	7,473	37,498	85	41,348	94
West <sup>1</sup> .....	28,302	18,050	5,390	4,862	23,778	84	26,252	93
NORTHEAST:								
New England.....	12,831	9,099	1,377	2,355	10,052	78	11,223	87
Middle Atlantic.....	45,512	32,864	5,172	7,476	35,667	78	40,097	88
NORTH CENTRAL:								
East North Central.....	43,056	30,786	6,166	6,104	35,062	81	38,850	90
West North Central.....	16,991	9,437	4,902	2,652	14,037	83	15,491	91
SOUTH:								
South Atlantic.....	20,702	14,127	3,133	3,442	17,622	85	19,507	94
East South Central.....	8,487	5,320	1,726	1,441	7,230	85	7,997	94
West South Central.....	14,856	8,878	3,388	2,590	12,646	85	13,844	93
WEST:								
Mountain.....	6,031	3,600	1,466	965	5,266	87	5,740	95
Pacific.....	22,271	14,450	3,924	3,897	18,512	83	20,512	92
NEW ENGLAND:								
Maine.....	962	623	157	182	755	78	860	89
New Hampshire.....	608	411	74	123	505	83	543	89
Vermont.....	380	242	61	77	321	84	325	86
Massachusetts.....	6,561	4,741	641	1,179	5,212	79	5,824	89
Rhode Island.....	1,091	761	101	229	804	74	890	82
Connecticut.....	3,229	2,321	343	565	2,455	76	2,781	86
MIDDLE ATLANTIC:								
New York.....	24,379	17,330	2,773	4,276	18,892	77	21,206	87
New Jersey.....	7,418	5,528	864	1,026	6,094	82	6,849	92
Pennsylvania.....	13,715	10,006	1,535	2,174	10,681	78	12,042	88
EAST NORTH CENTRAL:								
Ohio.....	10,986	7,862	1,444	1,680	8,886	81	9,891	90
Indiana.....	5,052	3,568	858	626	4,140	82	4,545	90
Illinois.....	13,820	9,814	1,998	2,008	11,139	81	12,319	89
Michigan.....	8,955	6,706	1,076	1,173	7,335	82	8,136	91
Wisconsin.....	4,243	2,836	790	617	3,562	84	3,959	93
WEST NORTH CENTRAL:								
Minnesota.....	3,567	2,159	870	538	3,087	87	3,416	96
Iowa.....	3,304	1,555	1,215	534	2,742	83	2,980	90
Missouri.....	4,862	3,107	955	800	3,784	78	4,253	87
North Dakota.....	678	294	282	102	586	86	636	94
South Dakota.....	730	302	338	90	612	84	666	91
Nebraska.....	1,623	810	565	248	1,305	80	1,444	89
Kansas.....	2,227	1,210	677	340	1,921	86	2,096	94
SOUTH ATLANTIC:								
Delaware.....	550	355	68	127	340	62	397	72
Maryland.....	3,132	2,237	391	504	2,545	81	2,837	91
District of Columbia...	1,567	1,138	132	297	1,290	82	1,401	89
Virginia.....	3,197	2,303	418	476	2,915	91	3,173	99
West Virginia.....	1,876	1,417	191	268	1,550	83	1,718	92
North Carolina.....	3,188	2,052	645	491	2,771	87	3,089	97
South Carolina.....	1,492	1,014	233	245	1,279	86	1,447	97
Georgia.....	2,757	1,839	465	453	2,306	84	2,577	93
Florida.....	2,943	1,772	590	581	2,626	89	2,868	97
EAST SOUTH CENTRAL:								
Kentucky.....	2,324	1,458	485	381	2,028	87	2,229	96
Tennessee.....	2,694	1,755	473	466	2,305	86	2,535	94
Alabama.....	2,181	1,442	377	362	1,869	86	2,078	95
Mississippi.....	1,288	665	391	232	1,028	80	1,155	90

<sup>1</sup> Excludes Alaska and Hawaii.



Table A-5.—OBE ESTIMATES OF TOTAL MONEY INCOME IN 1949 BY TYPE, AND 1950 CENSUS ESTIMATES OF TOTAL MONEY INCOME IN 1949 BASED ON FIGURES FOR FAMILIES AND UNRELATED INDIVIDUALS AND PERSONS 14 YEARS OLD AND OVER, BY REGIONS, DIVISIONS, AND STATES—Con.

[Millions of dollars]

Region, division, and State	OBE				Census			
	Total income	Wage or salary income	Self- employ- ment income	Income other than earnings	Income of families and unrelated individuals		Income of persons 14 years old and over	
					Total	Percent of OBE	Total	Percent of OBE
WEST SOUTH CENTRAL:								
Arkansas.....	\$1,316	\$682	\$410	\$224	\$1,096	83	\$1,236	94
Louisiana.....	2,566	1,590	463	513	2,053	80	2,272	89
Oklahoma.....	2,216	1,259	535	422	1,954	88	2,171	98
Texas.....	8,758	5,347	1,980	1,431	7,543	86	8,165	93
MOUNTAIN:								
Montana.....	812	434	261	117	677	83	726	89
Idaho.....	647	370	188	89	588	91	655	101
Wyoming.....	406	257	91	58	358	88	387	95
Colorado.....	1,656	965	382	309	1,448	87	1,561	94
New Mexico.....	661	385	169	107	605	92	664	100
Arizona.....	828	499	189	140	702	85	773	93
Utah.....	763	524	136	103	670	88	728	95
Nevada.....	258	166	50	42	218	84	246	95
PACIFIC:								
Washington.....	3,360	2,207	596	557	2,900	86	3,169	94
Oregon.....	2,098	1,332	458	308	1,803	86	1,978	94
California.....	16,813	10,911	2,870	3,032	13,809	82	15,365	91

Source: OBE data prepared by the Office of Business Economics. Census data based on unpublished tabulations of the Bureau of the Census.

Table A-6.—COMPARISON OF CENSUS, CPS, AND OBE NUMBERS OF FAMILIES AND UNRELATED INDIVIDUALS, BY INCOME LEVELS IN 1959

[In millions]

Income level	Family personal income — OBE	Total money income	
		Census	CPS
FAMILIES AND INDIVIDUALS			
Total.....	55.3	58.3	55.8
Under \$2,000.....	7.5	13.6	12.1
\$2,000 to \$3,999.....	11.4	10.9	11.1
\$4,000 to \$5,999.....	12.5	12.1	12.6
\$6,000 to \$9,999.....	15.5	14.7	14.3
\$10,000 and over.....	8.4	7.0	5.7
FAMILIES			
Total.....	44.8	45.1	45.1
Under \$2,000.....	3.5	5.9	6.0
\$2,000 to \$3,999.....	7.6	8.0	8.8
\$4,000 to \$5,999.....	10.7	10.5	11.2
\$6,000 to \$9,999.....	14.8	13.9	13.6
\$10,000 and over.....	8.2	6.8	5.5

Source: OBE data from Maurice Liebenberg and Jeannette M. Fitzwilliams, "Size Distribution of Income in 1961," *Survey of Current Business*, April 1962; 1960 Census data from *1960 Census of Population*, Vol. I, *Characteristics of the Population*, Part I, U.S. Summary, table 95; and CPS data from U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, No. 35, table 5.

in the OBE distribution for family personal income. A part of this difference is attributable to the larger number of unrelated individuals who were counted as separate units in the decennial census, but counted either as part of family groups, or entirely excluded, in the March 1960 CPS and in OBE. The 1960 Census includes 2.7 million more unrelated individuals than the OBE estimates and many of these were undoubtedly included in the lower income levels. All three series agree very closely with respect to the total number of families. The 1960 Census and CPS distributions show about the same number of families with total money incomes under \$2,000 (about 6 million), but a considerably smaller number is shown in OBE—3.5 million. Because of differences in the definition of income, these numbers are not, of course, directly comparable. Adjustments which were made to increase the comparability between the two series are described in table A-7.

At the upper end of the distribution there were large differences among the three sources of information. The March 1960 CPS shows 5.5 million families with total money incomes over \$10,000, compared with 6.8 million in the 1960 Census, and 8.2 million in OBE. These figures suggest at least two separate problems: Why are the CPS and 1960 Census estimates of the number of high-income families so far below the OBE estimates? And why are the CPS estimates so different from the 1960 Census figures? The first question is discussed below; and the second in a later section of this appendix, where CPS and Census income distributions are compared.

The OBE figures are prepared quite independently of the Census data. The rather complicated procedure used to prepare the OBE estimates, explained in detail elsewhere,<sup>4</sup> basically involves combining Federal individual income tax

Table A-7.—ADJUSTMENTS TO FAMILY MONEY INCOME IN 1959 TO OBTAIN FAMILY PERSONAL INCOME

[Millions of dollars]

Family personal income.....	\$365,432
Family money income.....	351,398
Difference.....	\$14,034
<u>Deductions from family money income</u>	
Wages and salaries: Employee contributions to Social Security....	\$7,322
Nonfarm business: Contributions to Social Security.....	433
Inventory valuation adjustment.....	139
Farm income: Contributions to Social Security.....	158
Rent: Roomer and boarder income.....	780
Miscellaneous: Periodic payments from life insurance.....	1,552
	<u>\$10,384</u>
<u>Additions to family money income</u>	
Nonmoney wages: Farm.....	\$439
Nonfarm.....	1,434
Nonfarm business: Imputed profits.....	457
Farm business: Inventory change.....	92
Nonmoney food.....	971
Nonmoney housing.....	1,971
Interest: Imputed.....	10,066
Accrued interest on U.S. Bonds.....	238
Rent: Imputed rent on nonfarm owner-occupied homes.....	6,153
Miscellaneous: Lump sum payments from Social Security and	
National Service Life Insurance.....	741
Business transfer payments to individuals.....	1,441
Nonmoney workmen's compensation.....	415
	<u>\$24,418</u>

Source: Unpublished data of the Office of Business Economics.



returns into family units; and adjusting the income distributions based on these units to include (a) families that did not file tax returns, and (b) types of income not required to be reported on tax returns. Finally, the amounts of income that are reported are adjusted to agree with control totals used in the personal income series. Since both census and survey data are subject to some underreporting of income, it is to be expected that the OBE distributions, which are based on aggregates adjusted to equal the totals shown in the national income accounts, will have fewer families at the bottom of the distribution and more at the top. So long as the difference between CPS and OBE aggregate money income is in the neighborhood of 15 percent, fairly large differences in the distributions by income levels can be expected.

The 1960 Census aggregates, however, are within 5 percent of the comparable OBE money income total; yet the difference in the distribution by income levels remains quite striking. This suggests the possibility that the results produced by the OBE adjustment procedure may be in error, especially since a major part of the operation is based on relationships established about 15 years ago. The thought is not a new one; and it has caused concern for some time to those who are most familiar with the details of the adjustment procedure. According to Selma F. Goldsmith, who worked on both series,

Since the OBE procedure for the entire postwar period has been linked to the 1946 findings, it is possible that when relationships from the newly available CPS data for 1959 are incorporated by the OBE, the number of nonfarm families in the lower income range may be larger than is now the case.<sup>5</sup>

An attempt was made in table A-8 to place the 1960 Census and the OBE income distributions on a roughly comparable basis by adding to the Census distribution the estimated amount of money income missed in the census, as well as the income included in OBE family personal income data but not in the census data. The procedure involved numerous assumptions and the following steps: First, an estimate was made of the aggregate money income included in the census. This amounted to \$331.7 billion (\$317.1 nonfarm and \$14.6 farm) compared with an OBE estimate of \$353.1 billion. Thus it was estimated that \$20.3 billion in money income would have to be added to the Census distribution to account for missing money income. In addition, the OBE data contain \$14.0 billion other income (largely nonmoney income), included in the family personal income concept but not in family money income. This amount also had to be added to the Census distribution, making a net addition of \$34.3 billion.

The next question was how to distribute the missing income by income levels. To find the answer, the items that must be adjusted in making the transition from family money income to family personal income were examined; this was done for the purpose of finding out whether any differential pattern of adjustment by income level was warranted. Table A-7 summarizes the items involved in this adjustment for 1959. Note that \$10.4 billion, consisting largely of employee contributions to Social Security, must be deleted from the Census

Table A-8.—COMPARISON OF CENSUS AND OBE ESTIMATES OF FAMILIES AND UNRELATED INDIVIDUALS, BY FAMILY PERSONAL INCOME IN 1959  
[In millions]

Family personal income <sup>1</sup>	Families and unrelated individuals		Families	
	OBE	Census	OBE	Census
Total.....	55.3	58.3	44.8	45.1
Under \$2,000.....	7.5	12.0	3.5	4.8
\$2,000 to \$3,999.....	11.4	10.0	7.6	7.1
\$4,000 to \$5,999.....	12.5	10.8	10.7	9.0
\$6,000 to \$9,999.....	15.5	16.5	14.9	15.5
\$10,000 and over.....	8.4	9.0	8.3	8.7

<sup>1</sup> See text for explanation of family personal income.

Source: OBE data from Liebenberg and Fitzwilliams, *op. cit.*; census data based on unpublished data of the 1960 Census.

data to cover items included in money income but not in family personal income. On the other hand, \$24.4 billion must be added to the Census data to include items consisting largely of nonmoney or imputed income that are excluded from the money income concept. About \$16 billion, or two-thirds of the total, consists of imputed interest or imputed rent on nonfarm owner-occupied homes. A relatively small part of the total (\$3.4 billion) represents the value of food produced and consumed on farms or the rental value of farm housing.

Examination of these data led to the preparation of separate adjustments for farm and nonfarm families and individuals. An estimate of the aggregate money income of farm families and unrelated individuals in the Census distribution was found to be about \$14.8 billion. Imputed farm income is estimated by OBE at \$3.3 billion (see table A-7). The Census distribution of money income was inflated to include this \$3.3 billion of imputed income by assuming a 100-percent increase in the dollar limit of the two lowest income levels (under \$1,000, and \$1,000 to \$1,999), a 50-percent increase in the next two levels (\$2,000 to \$2,999, and \$3,000 to \$3,999), a 25-percent increase in the \$4,000 to \$4,999 level, and a 10-percent increase in the \$5,000 to \$5,999 level. No imputed income was added to income levels above \$6,000.

These assumptions are undoubtedly incorrect because some imputed income, particularly the value of farm housing, accrues to the higher income groups. It is also unlikely that half the farm families and unrelated individuals with money income under \$2,000 are in fact moved to a higher income level by the addition of imputed income. These assumptions were deliberately made extreme to see whether the adjustment for imputed income could possibly reduce the great difference between the Census and OBE estimates of the number of low-income families. For this reason, assumptions were used that favored the allocation of income to the lower income groups.

On the basis of the available data, no logical basis could be found for distributing the nonfarm imputed income or the missing money income. It seems reasonable that much of the nonfarm imputed income accrues disproportionately to the upper income groups rather than to those with incomes under \$2,000.



Imputed interest largely goes to the holders of checking accounts. This \$10 billion item of imputed income must surely be disproportionately allocated to higher income families. Since homeowners have higher average incomes than renters, it is also likely that a very small share of another major item of imputed nonfarm income—\$6 billion of imputed rental to nonfarm homeowners—goes to families with incomes under \$2,000. In balance it appeared that the most reasonable distribution of nonfarm imputed income would be a disproportionate allocation in favor of the upper income groups. However, in order to inflate the estimate for the lower income groups as much as possible, the nonfarm imputed income and the missing money income were allocated proportionately by income level.

Table A-8 shows that when rough allowance is made for conceptual differences between the two series, the OBE figures tend to understate the number in the low-income groups. The 1960 Census estimates of families and unrelated individuals with incomes under \$2,000 is 12.0 million, compared with 7.5 million for OBE. Even if it is assumed that all 2.7 million unrelated individuals included in the Census but not in OBE had incomes under \$2,000—which is unlikely since most of them were Armed Forces members whose annual pay, including income in kind, typically exceeds \$2,000—the difference between the two series is 1.5 million. If the comparison is restricted to families alone, the Census estimate of the number with incomes under \$2,000 exceeds OBE by 1.3 million, or about one-third.

In order to obtain an income distribution for the CPS that is consistent with the OBE estimate of aggregate family personal income, an adjustment procedure was also applied to that survey. In the March 1960 CPS each person 14 years old and over was asked to report the amount of cash income received during 1959 from each of the following sources: wages and salaries; net income from nonfarm self-employment; net income from farm self-employment; rents, royalties, estates, and trusts; Social Security; private pensions, and veterans' payments; and all other sources including unemployment compensation, public and private assistance, workmen's compensation, etc. The answers were summarized on a family basis and a tabulation was made showing the estimated amount of each type of income obtained in the CPS. A summary comparison of CPS and OBE aggregates of each type of money income is shown in table A-9.

Using these figures, the amount of income reported by each family in the CPS was adjusted by a factor intended to yield in the aggregate the OBE estimate of each type of money income. (Actually, the adjusted CPS aggregate was somewhat greater than the OBE control. See footnote to table A-9 for explanation.) Thus, each reported amount of wage and salary income was multiplied by 109, each nonfarm self-employment amount was multiplied by 122, etc. The new amounts for each type of income were then summed for each family and a new estimate of family money income was obtained. The data were then retabulated by income level to obtain the figures shown in table A-10.

Table A-9.—ESTIMATED AMOUNT OF AGGREGATE MONEY INCOME IN 1959, BY TYPE, BASED ON DATA FROM THE CPS AND THE OBE

[In billions]

Type of income	OBE	CPS	Ratio of OBE to CPS
Total.....	\$351.4	<sup>1</sup> \$294.5	119
Wages or salary income.....	249.1	228.9	109
Nonfarm self-employment income.....	34.1	28.0	122
Farm self-employment income.....	8.2	5.6	147
Interest and dividends.....	25.5	7.2	353
Rental income.....	6.5	4.3	149
Social Security, veterans' payments, and private pensions.....	16.0	15.1	106
Other income.....	12.1	5.4	226

<sup>1</sup> Table A-1 shows a CPS aggregate total money income of \$306.7 billion for 1959, as compared with \$294.5 billion shown here. The aggregate in table A-1 was obtained from the published distributions by total money income levels, whereas the source pattern aggregate shown here was obtained from a special tabulation. The difference of \$12 billion was due to the fact that somewhat different methods were used to obtain the two estimates. One complication that stems from this fact is that when CPS data were adjusted to OBE control totals as described in the text, the money income distribution totaled to more than \$351 billion which was used as the control. As a result, families and unrelated individuals in the adjusted CPS income distribution are classified at somewhat higher levels than they should be. Thus the number of low-income families in the adjusted CPS distribution is somewhat understated.

Note: See text for explanation of aggregate money income.

Source: Unpublished data of the Bureau of the Census and the Office of Business Economics.

Table A-10.—COMPARISON OF CENSUS AND CPS ESTIMATES OF FAMILIES AND UNRELATED INDIVIDUALS, BY ADJUSTED MONEY INCOME IN 1959

[In millions. Income levels adjusted to include estimated amount of money missed in the 1960 Census and CPS results]

Adjusted money income <sup>1</sup>	Families and unrelated individuals		Families	
	Census	CPS	Census	CPS
Total.....	58.3	55.8	45.1	45.1
Under \$2,000.....	13.0	8.0	5.5	3.9
\$2,000 to \$3,999.....	10.4	10.0	7.5	6.8
\$4,000 to \$5,999.....	11.4	12.0	9.7	10.2
\$6,000 to \$9,999.....	15.4	16.5	14.5	15.5
\$10,000 and over.....	8.2	9.1	7.9	8.6

<sup>1</sup> See text for explanation of adjusted money income.

Note: OBE data not shown; available only by family personal income level, not by money income level.

Source: Unpublished data of the 1960 Census and the March 1960 CPS.

In order to understand the significance of table A-10, it is important to recall that the 1960 Census data failed to include only \$20 billion in money income, and that this income was added to the distribution in a very crude way (i.e., proportionately at each income level). On the other hand, the CPS data did not include much more money income—\$45 billion to be exact—but this income was added to the distribution by a much more sophisticated procedure. It is clear from table A-10 that the two distributions are quite different even though both now add to about the same aggregate income. The 1960 Census data have many more families and unrelated individuals at the lower income levels. The question is: Which of these distributions is more correct—the Census data with the larger initial aggregate and crude adjustment procedure, or the CPS data with the far smaller initial aggregate and a



more sophisticated adjustment procedure? Although there is no objective answer, a better case can be made for the 1960 Census data because they required much less adjustment.

In order to compare the CPS and OBE data it was necessary to inflate the adjusted CPS money income figures in table A-10 to family personal income. This adjustment was made in much the same way as that used to obtain total money income, which has been described in the discussion pertaining to table A-9. The adjusted money income figures were processed using the factors shown in table A-11. These factors were obtained by adding to and subtracting from each type of income the appropriate item from table A-7. One exception, however, should be noted: imputed rent from nonfarm owner-occupied housing was added to wages and salaries rather than to rental income, on the assumption that income from this source is widely distributed throughout the population, and, unlike rent, is not highly concentrated.

Table A-11.—ADJUSTMENT FACTORS TO INFLATE FAMILY MONEY INCOME TO FAMILY PERSONAL INCOME

[In billions]

Type of income	Family money income <sup>1</sup>	Family personal income	Ratio
Wage or salary income.....	\$249.1	\$249.9	1.0003
Nonfarm self-employment income.....	34.1	34.1	1.0000
Farm self-employment income.....	8.2	10.9	1.3293
Interest and dividends.....	25.5	35.8	1.4039
Rental income.....	6.5	5.7	.8769
Social Security, veterans' payments, and pensions.....	16.0	16.0	1.0000
Other income.....	12.1	13.0	1.0744

<sup>1</sup> See text for explanation of family money income.

Source: Unpublished data of the Bureau of the Census.

Table A-12 shows CPS and OBE figures for families and unrelated individuals distributed by family personal income. There is reasonably close agreement between these two sets of numbers—particularly at the extremes of the distribution—although the CPS data show a somewhat larger number of low-income families. The difference, however, does not appear to be striking.

Table A-12.—COMPARISON OF CPS AND OBE ESTIMATES OF FAMILIES AND UNRELATED INDIVIDUALS, BY FAMILY PERSONAL INCOME IN 1959

[In millions]

Family personal income <sup>1</sup>	Families and unrelated individuals		Families	
	CPS	OBE	CPS	OBE
Total.....	55.8	55.3	45.1	44.8
Under \$2,000.....	7.9	7.5	3.9	3.5
\$2,000 to \$3,999.....	10.0	11.4	6.8	7.6
\$4,000 to \$5,999.....	11.9	12.5	10.1	10.7
\$6,000 to \$9,999.....	16.5	15.5	15.4	14.9
\$10,000 and over.....	9.4	8.4	8.9	8.3

<sup>1</sup> See text for explanation of family personal income.

Source: OBE data from Liebenberg and Fitzwilliams, *op. cit.*; CPS estimates based on unpublished data from the March 1960 CPS.

The 1960 Census data are not shown in table A-12 because they were not inflated to family personal income. To some extent, the similarity of the CPS and OBE results is due to the fact that there is some relationship between the procedures used to prepare both sets of figures. The major difference between the two series is that the OBE figures start with tax returns which are adjusted to a family basis, whereas CPS starts with family income obtained in household reports. According to the available evidence, the completeness of income reporting is not much better on tax returns than in household surveys. Aside from this difference, both sources use essentially the same method for distributing the missing income; i.e., each type of income is distributed proportionately by income level and adjusted total income is then obtained. The OBE adjusts the income levels rather than the income of the individual family; but this difference does not necessarily have a major impact on the results.

On the basis of this limited evidence, there is reason to believe that the OBE figures tend to understate the number of low-income families and individuals. This judgment, however, must be very tentative until the OBE does further work on a reexamination of the procedures used to prepare adjusted income distributions.

### **Comparison of Census and Sales Management estimates of aggregate income by counties: 1959**

In contrast to the State data, there are no official figures that can be used to evaluate the 1960 Census results for counties. The Office of Business Economics regularly publishes income figures for States but not for smaller geographic areas.<sup>6</sup> Many State and local government agencies, university bureaus of business research, chambers of commerce, and commercial banks prepare county income estimates. In a mail canvass made of all such agencies listed in the Department of Commerce report, *Personal Income: A Key to Small-Area Market Analysis*, published in 1961,<sup>7</sup> it was found that none of these agencies had made comparisons of the 1960 Census figures with their own estimates using the same income concept.

There are three well-known commercial sources of county income estimates for the United States: Standard Rate and Data Service (published in *Spot Television Rates and Data*, *Newspaper Rates and Data*, and *Spot Radio Rates and Data*); Editor and Publisher Company (published in *Editor and Publisher Market Guide*); and Sales Management (published in *Survey of Buying Power*). Of these three sources of information, the cash income figures published by Sales Management were most nearly in conceptual agreement with the 1960 Census data. This series measures the money income received by households less personal tax and nontax payments which are primarily Federal, State, and local income taxes plus several other types of taxes and fees. The figures shown by Editor and Publisher and Standard Rate and Data Service are based on the personal income concept used by OBE. This concept includes several types of nonmoney income that are excluded from the census data. Editor and Publisher uses the personal income concept directly, whereas Standard Rate and Data Service uses disposable income, which is personal income less personal tax and nontax payments.



The comparison of the Census and Sales Management figures by county is not an evaluation in the same sense as the Census-OBE comparison. Nevertheless, the ability to compare the independently prepared Census and Sales Management county income figures with each other should provide useful insights into the quality of both series. The absence of independent estimates has evidently been disturbing to some users of the Sales Management figures. In 1961, the Director of Research of *Life* magazine, in testimony before a congressional committee, stated:

. . . for intercensal years we fall back on Sales Management in their survey of current buying power. . . . While we are satisfied that the households and population data are good, we don't know how good the income data are.<sup>8</sup>

The comparison attempted here provides at least a useful beginning in the evaluation of both sets of county income aggregates.

There are several important conceptual differences between the Sales Management income figures and those derived from the 1960 Census. For this reason, various adjustments had to be made in the Census results before they could be compared with Sales Management estimates.

Sales Management publishes the number of households and cash income per household for each county.<sup>9</sup> Using these figures, an estimate was prepared of the aggregate cash income received by households for each county. Sales Management uses the Census definition of a household. Excluded from the Sales Management figures are the incomes of all persons living in hotels, rooming houses, college dormitories, military barracks, or institutions, since the residents of such places are not members of the population residing in households.

Cash income includes money income received by residents of households. It excludes the income of persons not living in households as well as nonmoney income received by the population living in households. The benchmarks used to prepare the Sales Management figures for each State are estimates of personal income for the preceding year as published in the August issue of the *Survey of Current Business*. For example, State estimates for 1958 were taken from this source, adjusted to conform to the Sales Management definition of Net Effective Buying Income, and then projected for each State to 1959.<sup>10</sup> One important part of this adjustment was the deduction of personal tax and non-tax payments to arrive at a disposable income concept. Figures for 1958 were used in the adjustment procedure in order to obtain by January 1960 an estimate of the aggregate income in 1959 for each State. Ordinarily these figures would not have been published until August 1960.

The State totals derived in the manner described above were distributed by county, using a variety of statistical procedures. One of these procedures is described as follows:

. . . segregate the state total into the income derived from farming, manufacturing, trade, property, etc. Then the farm income would be distributed among all counties in accordance with the number of farm operators and laborers, the manufacturing income would be allocated according to the number of manufacturing workers in each county, and so on until the sum of the income earned by the components of the county labor force would be the county income total.<sup>11</sup>

It is further pointed out that the figures are

. . . refined by correlation analyses based on the median and mean rent figures collected for both counties and cities and reported in the 1940 and 1950 Censuses of Housing.<sup>12</sup>

The 1960 Census income aggregates for each county appear in the *County and City Data Book* for 1962. These figures were derived from *1960 Census of Population, General Social and Economic Characteristics*, Final Report, PC(1), chapter C, table 86. They represent the total money income of the entire population, before taxes are deducted. For comparability with the Sales Management figures, estimates had to be made for each county of the income received by the population living in hotels, rooming houses, and other group quarters, as well as personal tax and nontax payments. The census data also had to be adjusted for consistency with the personal income totals used as benchmarks in preparing the Sales Management figures.

The number of persons living in group quarters in each county is shown in *1960 Census of Population, General Population Characteristics*, Final Report, PC(1), chapter B, table 28. The average income used to estimate the aggregate received by the population in group quarters depended on the type of group quarters that was most important in each county. A listing was made of all special population concentrations, by county, for each State, including the estimated number of occupants in each place. In counties without any large special dwelling places, the median income for unrelated individuals was used as the average for the occupants of group quarters. Where most of the population in group quarters lived in military barracks, an average income of \$1,600 was used; \$700 was used for college dormitories; \$900 for homes for the aged; \$1,100 for migratory workers' camps; and \$200 for all institutions except homes for the aged.

Estimates of personal tax and nontax payments for each State were obtained from the August 1960 *Survey of Current Business*, pp. 13 and 17. It was assumed that these tax payments were distributed by county in the same proportion as the aggregate money income reported in the 1960 Census.

The final adjustment made in the Census figures was the adjustment for underreporting. Table A-2 shows that in most States, the census figures were several percentage points below the independent estimates prepared by OBE. Since Sales Management essentially uses the OBE State totals as benchmarks, the Census results also had to be inflated to the OBE estimates before the two series could be compared. This adjustment was made by assuming that the underreporting of income in each county was the same as for the State as a whole. The estimate of disposable income received by households in each county was therefore inflated by the percent of underreporting shown in table A-2 for the State in which the county is located.

Table A-13 shows the specific adjustments that were made in the 1960 Census income figures for Connecticut to make them comparable with the Sales Management estimates.



Table A-13.—ADJUSTMENT OF 1960 CENSUS FIGURES FOR COMPARABILITY WITH SALES MANAGEMENT ESTIMATES, FOR CONNECTICUT

[In millions]

County	Aggregate money income in 1960 Census	Estimated aggregate income of group quarters residents	Estimated taxes	Census estimate excluding group quarters and taxes	Census estimate comparable with Sales Management (Col. 4 adjusted for underreporting of income)	Sales Management estimates
	(1)	(2)	(3)	(4)	(5)	(6)
The State.....	\$5,963.3	\$62.4	\$874.2	\$5,026.7	\$5,464.0	\$5,609
Fairfield.....	1,825.7	9.6	267.6	1,548.5	1,683.2	1,682
Hartford.....	1,610.5	11.3	236.1	1,363.1	1,481.6	1,530
Litchfield.....	267.3	2.7	39.2	225.4	245.0	235
Middlesex.....	185.3	1.1	27.2	157.0	170.8	167
New Haven.....	<sup>1</sup> 1,448.9	11.9	212.4	1,224.6	1,331.1	1,385
New London.....	373.4	19.7	54.7	299.0	325.0	355
Tolland.....	126.8	5.2	18.6	103.0	112.0	120
Windham.....	125.4	0.9	18.4	106.1	115.3	135

<sup>1</sup> This figure appears incorrectly in the *County and City Data Book* for 1962 as 1,499.

Source: Column 1 from U.S. Bureau of the Census, *County and City Data Book, 1962*; columns 2-5 based on unpublished estimates of the Bureau of the Census; and column 6 from *Sales Management, Survey of Buying Power*, July 10, 1960. See also, Herman P. Miller, *Comparison of 1960 Census Aggregates with Independent Estimates by State and County*, Advertising Research Foundation, 1964.

*Column 1* shows the aggregate money income figures that underlie the rounded figures published in the *County and City Data Book* for 1962.

*Column 2* shows the estimated amount of income received by residents of group quarters in each county. This amount must be subtracted from the Census total because group quarters are not included in the Sales Management figures. The estimate for Fairfield County, for example, was obtained by assigning an average income of \$700 to each of the 13,696 residents of group quarters. This average was used because most of these residents appeared to be college students living in dormitories.

*Column 3* shows the estimated personal tax and nontax payments (largely Federal, State, and local income taxes) included in the 1960 Census figures. This amount also must be subtracted from the Census total because it is not included in the Sales Management figures. The estimate was obtained in the following way. The August 1960 *Survey of Current Business* (pp. 13 and 17) shows that \$874 million in personal tax and nontax payments (largely Federal, State, and local income taxes) were paid in Connecticut in 1959. This amount represents 14.66 percent of the estimated aggregate money income for Connecticut reported in the 1960 Census (\$5,963.3 billion). It was therefore estimated that 14.66 percent of the aggregate income in each county represented Federal, State, and local income tax payments.

*Column 4* shows the 1960 Census totals excluding income of group quarters and taxes.

*Column 5* shows column 4 adjusted for underreporting of income in the 1960 Census. Table A-2 shows that only 92 percent of the OBE estimated income

for Connecticut was reported in the census. Therefore the Census totals were divided by 0.92 to obtain the amount that would be consistent with the OBE estimate.

*Column 6* shows the Sales Management figures for each county.

A summary of the differences between Census and Sales Management estimates by county is shown in table A-14, and an additional summary for standard metropolitan statistical areas (SMSA's) is shown in table A-15.

The two sets of figures are generally in very close agreement with respect to the percent distribution of aggregate income among counties within a State. For the country as a whole, 80 percent of the counties were either in exact agreement, or they differed by one-tenth of a percentage point with respect to the proportion of the State total shown for a given county. Less than 3 percent of the counties differed by as much as 1 percentage point (see table A-14).

The absolute amounts of aggregate income by county were generally in much wider disagreement than were the percentage figures. As might be expected, the differences were most pronounced in the counties with the smallest aggregate incomes. For example, the estimated aggregate for Sumter County, Alabama, was \$10 million in the Census data and \$12 million in Sales Management. In both series, Sumter County received 0.3 percent of the State total; yet, there is a difference of \$2 million, or 20 percent, between the two figures. For the country as a whole, the estimated aggregate incomes differed by less than 5 percent for 28 percent of all counties; differences of 5 to 10 percent were found in 20 percent of the counties. Thus, in about one-half of the counties the differences in aggregate income between the two series were less than 10 percent. Relatively large differences—15 percent or more—were found in about one-third of all counties; but, as noted above, the amounts involved in most of these counties were relatively small and subject to large errors of estimation.

A more significant comparison of the Census and Sales Management income aggregates is shown in table A-15, where both sets of data are presented for standard metropolitan statistical areas. Since the underlying data were computed for counties, it was necessary to restrict the comparison to 188 SMSA's comprised of whole counties. These areas, however, represent a very large proportion of the total aggregate income in the United States, and they also contain the places with the most rapid change and development. Most users of income statistics for local areas undoubtedly attach greatest significance to the figures for SMSA's. Table A-15 shows that in 79 SMSA's, or 42 percent of the total, the difference between the Census and Sales Management estimates was less than 5 percent; in an additional 62 SMSA's, or 33 percent of the total, the difference was 5 to 10 percent. Thus, in about three-fourths of the SMSA's the difference between the two sets of figures was less than 10 percent.



Table A-14.—SUMMARY OF DIFFERENCES BETWEEN 1960 CENSUS AND SALES MANAGEMENT ESTIMATES OF AGGREGATE INCOME IN 1959, BY REGIONS, DIVISIONS AND STATES

Region, division, and State	Total number of counties	Counties in which Census and Sales Management estimates of percent of total income in each State vary by:			Counties in which Census and Sales Management estimates of aggregate income vary by:			
		0.1 percent or less	0.2 to 0.9 percent	1.0 percent or more	4.9 percent or less	5.0 to 9.9 percent	10.0 to 14.9 percent	15.0 percent or more
United States.....	3,072	2,464	528	80	852	623	504	1,100
Northeast.....	217	144	53	20	76	63	39	39
New England.....	67	22	35	10	28	17	13	9
Maine.....	16	7	7	2	8	3	4	1
New Hampshire.....	10	2	7	1	5	4	-	1
Vermont.....	14	4	9	1	6	3	2	3
Massachusetts.....	14	6	6	2	4	4	4	2
Rhode Island.....	5	-	3	2	1	1	2	1
Connecticut.....	8	3	3	2	4	2	1	1
Middle Atlantic.....	150	122	18	10	48	46	26	30
New York.....	62	52	6	4	19	14	11	18
New Jersey.....	21	10	8	3	7	5	4	5
Pennsylvania.....	67	60	4	3	22	27	11	7
North Central.....	1,054	884	151	19	285	203	156	410
East North Central....	436	393	39	4	137	109	72	118
Ohio.....	88	81	7	-	35	25	11	17
Indiana.....	92	80	12	-	33	28	16	15
Illinois.....	102	97	4	1	10	15	15	62
Michigan.....	83	74	7	2	33	21	17	12
Wisconsin.....	71	61	9	1	26	20	13	12
West North Central....	618	491	112	15	148	94	84	292
Minnesota.....	87	71	14	2	12	14	10	51
Iowa.....	99	81	16	2	18	20	15	46
Missouri.....	114	104	9	1	35	17	19	43
North Dakota.....	53	30	18	5	15	8	8	22
South Dakota.....	67	37	28	2	25	6	8	28
Nebraska.....	93	74	17	2	20	8	11	54
Kansas.....	105	94	10	1	23	21	13	48
South.....	1,387	1,157	212	18	363	259	254	511
South Atlantic.....	553	441	102	10	144	95	94	220
Delaware.....	3	1	2	-	-	2	1	-
Maryland.....	23	17	4	2	6	10	3	4
Dist. of Columbia...	1	1	-	-	-	1	-	-
Virginia.....	99	84	13	2	25	19	16	39
West Virginia.....	55	29	25	1	10	7	13	25
North Carolina.....	100	79	21	-	20	24	13	43
South Carolina.....	46	27	18	1	16	12	5	13
Georgia.....	159	149	8	2	46	7	34	72
Florida.....	67	54	11	2	21	13	9	24
East South Central....	364	306	52	6	101	77	69	117
Kentucky.....	120	105	14	1	37	21	25	37
Tennessee.....	95	89	5	1	26	20	14	35
Alabama.....	67	53	12	2	15	19	14	19
Mississippi.....	82	59	21	2	23	17	16	26
West South Central....	470	410	58	2	118	87	91	174
Arkansas.....	75	56	19	-	17	9	17	32
Louisiana.....	64	45	19	-	9	16	8	31
Oklahoma.....	77	69	8	-	30	19	12	16
Texas.....	254	240	12	2	62	43	54	95
West.....	414	279	112	23	121	98	55	140
Mountain.....	281	177	84	20	72	53	37	119
Montana.....	57	39	17	1	17	11	8	21
Idaho.....	45	34	8	3	14	10	8	13
Wyoming.....	24	7	13	4	8	4	6	6
Colorado.....	63	49	11	3	12	8	6	37
New Mexico.....	32	19	10	3	6	9	5	12
Arizona.....	14	2	8	4	2	3	1	8
Utah.....	29	20	9	-	8	6	3	12
Nevada.....	17	7	8	2	5	2	-	10
Pacific.....	133	102	28	3	49	45	18	21
Washington.....	39	29	8	2	15	13	3	8
Oregon.....	36	26	9	1	16	12	4	4
California.....	58	47	11	-	18	20	11	9

— Represents zero.

Source: Herman P. Miller, *Comparison of 1960 Census Aggregates with Independent Estimates by State and County*, Advertising Research Foundation, 1964, table 3, pp. 11-13.

**Table A-15.—CENSUS AND SALES MANAGEMENT ESTIMATES OF AGGREGATE INCOME  
IN 1959, BY STANDARD METROPOLITAN STATISTICAL AREAS**

[In millions. Excludes SMSA's in New England that do not consist of whole counties]

Standard metropolitan statistical area	Census	Sales Manage- ment	Ratio of Sales Manage- ment to Census	Standard metropolitan statistical area	Census	Sales Manage- ment	Ratio of Sales Manage- ment to Census
Total.....	\$199,771	\$198,444	.99	Gadsden, Ala.....	\$117	\$131	1.12
Abilene, Texas.....	177	162	.92	Galveston-Texas City, Texas.....	218	199	.91
Akron, Ohio.....	1,003	966	.96	Gary-Hammond-East Chicago, Ind.....	1,017	1,016	1.00
Albany, Ga.....	91	78	.86	Grand Rapids, Mich.....	660	645	.98
Albany-Schenectady-Troy, N.Y.....	1,190	1,343	1.13	Great Falls, Mont.....	132	129	.98
Albuquerque, N. Mex.....	457	429	.94	Green Bay, Wis.....	195	187	.96
Allentown-Bethlehem-Easton, Pa.-N.J.....	877	846	.96	Greensboro-High Point, N.C.	411	341	.83
Altoona, Pa.....	201	192	.96	Greenville, S.C.....	294	273	.93
Amarillo, Texas.....	259	295	1.14	Hamilton-Middletown, Ohio..	357	326	.91
Ann Arbor, Mich.....	323	255	.79	Harrisburg, Pa.....	613	601	.98
Asheville, N.C.....	187	176	.94	Houston, Texas.....	2,307	2,103	.91
Atlanta, Ga.....	1,765	1,637	.93	Huntington-Ashland, W.Va.- Ky.-Ohio.....	374	368	.98
Atlantic City, N.J.....	259	259	1.00	Huntsville, Ala.....	173	109	.63
Augusta, Ga.-S.C.....	256	330	1.29	Indianapolis, Ind.....	1,384	1,366	.99
Austin, Texas.....	308	295	.96	Jackson, Mich.....	235	221	.94
Bakersfield, Calif.....	492	524	1.07	Jackson, Miss.....	278	220	.79
Baltimore, Md.....	2,996	3,026	1.01	Jacksonville, Fla.....	683	702	1.03
Baton Rouge, La.....	361	387	1.07	Jersey City, N.J.....	1,110	1,268	1.14
Bay City, Mich.....	169	174	1.03	Johnstown, Pa.....	357	386	1.08
Beaumont-Port Arthur, Texas.....	500	502	1.00	Kalamazoo, Mich.....	305	291	.95
Billings, Mont.....	147	136	.93	Kansas City, Mo.-Kans.....	2,104	2,101	1.00
Binghamton, N.Y.....	395	405	1.03	Kenosha, Wis.....	194	180	.93
Birmingham, Ala.....	950	971	1.02	Knoxville, Tenn.....	514	504	.98
Brownsville-Harlingen-San Benito, Texas.....	134	170	1.27	Lake Charles, La.....	203	218	1.07
Buffalo, N.Y.....	2,422	2,588	1.07	Lancaster, Pa.....	476	497	1.04
Canton, Ohio.....	605	576	.95	Lansing, Mich.....	518	543	1.05
Cedar Rapids, Iowa.....	257	221	.86	Laredo, Texas.....	54	59	1.09
Champaign-Urbana, Ill.....	220	225	1.02	Las Vegas, Nev.....	269	252	.94
Charleston, S.C.....	257	233	.91	Lawton, Okla.....	106	90	.85
Charleston, W.Va.....	429	400	.93	Lexington, Ky.....	210	174	.83
Charlotte, N.C.....	483	432	.89	Lima, Ohio.....	166	177	1.07
Chattanooga, Tenn.-Ga.....	421	399	.95	Lincoln, Nebr.....	274	257	.94
Chicago, Ill.....	13,935	14,107	1.01	Little Rock-North Little Rock, Ark.....	388	380	.98
Cincinnati, Ohio-Ky.....	2,048	1,948	.95	Lorain-Elyria, Ohio.....	364	385	1.06
Cleveland, Ohio.....	3,850	3,751	.97	Los Angeles-Long Beach, Calif.....	15,168	14,322	.94
Colorado Springs, Colo.....	221	188	.85	Louisville, Ky.-Ind.....	1,191	1,118	.94
Columbia, S.C.....	282	262	.93	Lubbock, Texas.....	260	286	1.10
Columbus, Ga.-Ala.....	265	290	1.09	Lynchburg, Va.....	146	133	.91
Columbus, Ohio.....	1,303	1,328	1.02	Macon, Ga.....	256	238	.93
Corpus Christi, Texas.....	296	360	1.22	Madison, Wis.....	401	370	.92
Dallas, Texas.....	2,097	1,827	.87	Memphis, Tenn.....	888	884	1.00
Davenport-Rock Island- Moline, Iowa-Ill.....	509	532	1.05	Miami, Fla.....	1,686	1,732	1.03
Dayton, Ohio.....	1,333	1,337	1.00	Midland, Texas.....	148	133	.90
Decatur, Ill.....	215	227	1.06	Milwaukee, Wis.....	2,418	2,277	.94
Denver, Colo.....	1,796	1,707	.95	Minneapolis-St. Paul, Minn.....	2,862	2,621	.92
Des Moines, Iowa.....	522	493	.94	Mobile, Ala.....	421	384	.91
Detroit, Mich.....	7,392	7,968	1.08	Monroe, La.....	130	127	.98
Dubuque, Iowa.....	118	120	1.02	Montgomery, Ala.....	235	234	1.00
Duluth-Superior, Minn.-Wis.	414	452	1.09	Muncie, Ind.....	184	187	1.02
Durham, N.C.....	167	158	.95	Muskegon-Muskegon Heights, Mich.....	243	236	.97
El Paso, Texas.....	424	473	1.12	Nashville, Tenn.....	647	567	.88
Erie, Pa.....	408	419	1.03	Newark, N.J.....	3,798	3,896	1.03
Eugene, Oreg.....	271	254	.94	New Orleans, La.....	1,371	1,325	.97
Evansville, Ind.-Ky.....	305	347	1.14	Newport News-Hampton, Va...	326	309	.95
Fargo-Moorhead, N. Dak.- Minn.....	171	209	1.22	New York, N.Y.....	23,498	24,200	1.03
Flint, Mich.....	656	784	1.20	Norfolk-Portsmouth, Va.....	742	908	1.22
Fort Lauderdale-Hollywood, Fla.....	594	486	.82	Odessa, Texas.....	153	175	1.14
Fort Smith, Ark.....	95	82	.86	Ogden, Utah.....	173	175	1.01
Fort Wayne, Ind.....	434	432	1.00	Oklahoma City, Okla.....	846	829	.98
Fort Worth, Texas.....	975	989	1.01	Omaha, Nebr.-Iowa.....	867	757	.87
Fresno, Calif.....	594	625	1.05	Orlando, Fla.....	505	484	.96



Table A-15.—CENSUS AND SALES MANAGEMENT ESTIMATES OF AGGREGATE INCOME IN 1959, BY STANDARD METROPOLITAN STATISTICAL AREAS—Con.

[In millions. Excludes SMSA's in New England that do not consist of whole counties]

Standard metropolitan statistical area	Census	Sales Management	Ratio of Sales Management to Census	Standard metropolitan statistical area	Census	Sales Management	Ratio of Sales Management to Census
Paterson-Clifton-Passaic, N.J.....	\$2,660	\$2,806	1.05	Sioux City, Iowa.....	\$179	\$180	1.01
Pensacola, Fla.....	269	269	1.00	Sioux Falls, S. Dak.....	147	138	.94
Peoria, Ill.....	538	592	1.10	South Bend, Ind.....	443	483	1.09
Philadelphia, Pa.-N.J.....	8,307	7,969	.96	Spokane, Wash.....	462	524	1.13
Phoenix, Ariz.....	1,079	990	.92	Springfield, Ill.....	278	283	1.02
Pittsburgh, Pa.....	4,336	4,235	.98	Springfield, Mo.....	200	202	1.01
Portland, Oreg.-Wash.....	1,537	1,519	.99	Springfield, Ohio.....	217	231	1.06
Provo-Orem, Utah.....	132	138	1.05	Steubenville-Weirton, Ohio-W.Va.....	287	284	.99
Pueblo, Colo.....	167	182	1.09	Stockton, Calif.....	410	444	1.08
Racine, Wis.....	265	258	.97	Syracuse, N.Y.....	1,032	1,006	.97
Raleigh, N.C.....	249	212	.85	Tacoma, Wash.....	494	502	1.02
Reading, Pa.....	495	501	1.01	Tampa-St. Petersburg, Fla..	1,214	1,178	.97
Reno, Nev.....	197	184	.93	Terre Haute, Ind.....	172	178	1.03
Richmond, Va.....	713	673	.94	Texarkana, Texas-Ark.....	107	115	1.07
Roanoke, Va.....	240	250	1.04	Toledo, Ohio.....	888	1,002	1.13
Rochester, N.Y.....	1,230	1,231	1.00	Topeka, Kans.....	251	241	.96
Rockford, Ill.....	406	413	1.02	Trenton, N.J.....	519	542	1.04
Sacramento, Calif.....	1,006	991	.99	Tucson, Ariz.....	423	444	1.05
Saginaw, Mich.....	312	324	1.04	Tulsa, Okla.....	738	715	.97
St. Joseph, Mo.....	157	172	1.10	Tuscaloosa, Ala.....	123	109	.89
St. Louis, Mo.-Ill.....	4,018	4,069	1.01	Tyler, Texas.....	127	109	.86
Salt Lake City, Utah.....	638	653	1.02	Utica-Rome, N.Y.....	552	551	1.00
San Angelo, Texas.....	94	111	1.18	Waco, Texas.....	212	196	.92
San Antonio, Texas.....	903	838	.93	Washington, D.C.-Md.-Va....	4,302	4,190	.97
San Bernardino-Riverside-Ontario, Calif.....	1,335	1,322	.99	Waterloo, Iowa.....	217	216	1.00
San Diego, Calif.....	1,911	1,788	.94	West Palm Beach, Fla.....	387	385	.99
San Francisco-Oakland, Calif.....	6,294	6,278	1.00	Wheeling, W.Va.-Ohio.....	298	299	1.00
San Jose, Calif.....	1,343	1,209	.90	Wichita, Kans.....	619	608	.98
Santa Barbara, Calif.....	360	293	.81	Wichita Falls, Texas.....	199	196	.98
Savannah, Ga.....	253	258	1.02	Wilkes-Barre--Hazleton, Pa.	493	541	1.10
Scranton, Pa.....	343	367	1.07	Wilmington, Del.-N.J.....	804	846	1.05
Seattle, Wash.....	2,252	2,083	.92	Winston-Salem, N.C.....	315	261	.83
Shreveport, La.....	419	379	.90	York, Pa.....	408	397	.97
				Youngstown-Warren, Ohio....	892	898	1.01

Source: Herman P. Miller, *Comparison of 1960 Census Aggregates with Independent Estimates by State and County*, Advertising Research Foundation, 1964, table 4, pp. 14-19.

## Comparison of CPS and Census

Essentially two types of comparisons can be made between the income data collected in the CPS and in the census: (a) distributions or averages can be compared for many different characteristics, such as age, sex, color, education, etc.; and (b) tabulations can be made for an identical sample of persons who provided information in both surveys.

Overall comparisons of distributions and averages reveal net differences between the two surveys but provide little insight into the reasons for these differences. Moreover, comparisons of this type do not provide a validation of either set of statistics since neither one can be regarded as a suitable benchmark. Despite these limitations, there is understandable interest in comparing the results of these two surveys, since both attempt to measure the same thing. In addition, the CPS income surveys have provided useful income statistics for nearly 20 years; to this extent, at least, they provide a reasonable base against which the census results can be compared. Although agreement between the

two series does not necessarily validate either one, disagreement could provide useful clues regarding possible errors.

The second type of comparison noted above, generally referred to as a CPS-Census match, involves the analysis of reports obtained for an identical sample of persons in 1950 and 1960 who were included in both the CPS and the census. By comparing the answers given for this sample in the CPS and in the census, it is possible to obtain a measure of the extent of response variation and its likely impact on selected cross-classifications of income and other variables. As might be expected, a large proportion of the respondents did not report the same figures in both surveys. This type of comparison provides a basis, therefore, for getting behind the net errors detected by comparing overall distributions and averages and discovering some of the reasons for the differences. To the extent that nonrespondents in one survey were interviewed in the other, the CPS-Census match also sheds light on possible biases introduced into each set of data due to nonresponse.

*CPS and Census estimates for selected characteristics: 1949 and 1959.* Tables A-16 and A-17 present CPS and Census median incomes in 1949 and 1959 by selected characteristics. The figures for persons in table A-16 show that in both years the Census estimates tended to exceed the CPS figures. For

**Table A-16.—COMPARISON OF CENSUS AND CPS MEDIAN INCOME IN 1959 AND 1949 OF PERSONS 14 YEARS OLD AND OVER, BY RESIDENCE, COLOR, AND SEX**

Residence, color, and sex	1959			1949 <sup>1</sup>		
	CPS	Census	Difference	CPS	Census	Difference
<b>MALE</b>						
United States.....	\$3,996	\$4,103	\$107	\$2,346	\$2,434	\$88
White.....	4,208	4,319	111	2,471	2,572	101
Nonwhite.....	1,977	2,273	296	1,196	1,341	145
Nonfarm.....	4,230	4,254	24	2,563	2,613	50
White.....	4,425	4,474	49	2,669	2,741	72
Nonwhite.....	2,347	2,409	62	1,476	1,571	95
Farm.....	1,696	2,098	402	1,054	1,339	285
White.....	2,003	2,283	280	1,194	1,489	295
Nonwhite.....	664	778	114	488	577	89
<b>FEMALE</b>						
United States.....	1,222	1,357	135	960	1,029	69
White.....	1,313	1,441	128	1,070	1,137	67
Nonwhite.....	809	909	100	495	584	89
Nonfarm.....	1,290	1,397	107	1,049	1,104	55
White.....	1,361	1,478	117	1,158	1,200	42
Nonwhite.....	928	948	20	614	672	58
Farm.....	480	731	251	392	458	66
White.....	665	826	161	433	533	100
Nonwhite.....	311	367	56	290	311	21

<sup>1</sup> Excludes Alaska and Hawaii.

Source: 1960 Census data from *1960 Census of Population*, Vol. I, *Characteristics of the Population*, Part 1, U.S. Summary, table 97; 1950 Census data from *1950 Census of Population*, Vol. II, *Characteristics of the Population*, Part 1, U.S. Summary, table 138; and CPS data from U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, Nos. 7 and 35, tables 16 and 22, and underlying tabulations.



all males and for white males the differences amounted to about \$100 in each year; for nonwhites the absolute and relative differences were considerably greater, amounting to about \$150 in 1949, and \$300 in 1959. For females, both white and nonwhite, the Census estimates tended to exceed the CPS by about \$100 both in 1949 and 1959.

The estimates cited above are for the country as a whole. For male and female nonfarm residents the differences in both years were so small as to be insignificant. In contrast, the Census medians for male farm residents in both years were about one-fourth higher than CPS medians, and for females the 1959 Census medians were also substantially higher than for CPS.

The family data in table A-17 show somewhat different patterns from those described above for persons. In 1949, the Census estimates for families tended to be somewhat lower than the CPS for the country as a whole and for nonfarm residents; only farm residents in 1949 reported slightly higher incomes on the average in CPS than in the census. In 1959, the Census estimates for families were uniformly higher than CPS. For the country as a whole, among both white and nonwhite families, the difference was about \$250 in that year, representing a differential of about 5 percent for whites and nearly twice that amount for nonwhites. Among white families, the Census estimates exceed the

Table A-17.—COMPARISONS OF CENSUS AND CPS MEDIAN INCOME IN 1959 AND 1949 OF FAMILIES AND UNRELATED INDIVIDUALS, BY RESIDENCE AND COLOR

[Minus sign (—) denotes decrease]

Residence and color	1959			1949 <sup>1</sup>		
	CPS	Census	Difference	CPS	Census	Difference
<b>FAMILIES</b>						
United States.....	\$5,417	\$5,660	\$243	\$3,107	\$3,073	-\$34
White.....	5,643	5,893	250	3,232	(NA)	(NA)
Nonwhite.....	2,917	3,161	244	1,650	(NA)	(NA)
Nonfarm.....	5,620	5,822	202	3,324	3,249	-75
White.....	5,825	6,060	235	3,428	(NA)	(NA)
Nonwhite.....	3,225	3,336	111	1,973	(NA)	(NA)
Farm.....	2,800	3,228	428	1,587	1,729	142
White.....	3,151	3,472	321	1,757	(NA)	(NA)
Nonwhite.....	1,136	1,263	127	691	(NA)	(NA)
<b>UNRELATED INDIVIDUALS</b>						
United States.....	1,556	1,596	40	1,050	997	-53
White.....	1,663	1,654	-9	1,134	(NA)	(NA)
Nonwhite.....	1,075	1,217	142	819	(NA)	(NA)
Nonfarm.....	1,655	1,618	-37	1,116	1,043	-73
White.....	1,763	1,675	-88	1,208	(NA)	(NA)
Nonwhite.....	1,161	1,248	87	843	(NA)	(NA)
Farm.....	628	926	298	500	591	91
White.....	641	975	334	559	(NA)	(NA)
Nonwhite.....	(B)	648	(NA)	(B)	(NA)	(NA)

B Fewer than 100 sample cases.

NA Not available.

<sup>1</sup> Excludes Alaska and Hawaii.

Source: 1960 Census data from *1960 Census of Population, Vol. I, Characteristics of the Population, Part 1, U.S. Summary, table 95*; 1950 Census data from *1950 Census of Population, Vol. II, Characteristics of the Population, Part 1, U.S. Summary, table 57*; and CPS data from U.S. Bureau of the Census, *Current Population Reports—Consumer Income, Series P-60, Nos. 7 and 35, table 2, and underlying tabulations.*

CPS figures by about \$250 in nonfarm areas and by about \$300 in farm areas, whereas nonwhite family incomes in the Census averaged about \$100 higher than in the CPS in both farm and nonfarm areas. As previously noted in the discussion of the aggregates, the family income figures obtained in the 1960 Census are less affected by underreporting of income than was the case in 1950, due primarily to the change in the method of collecting family income data.

In view of some major conceptual differences in the definition of unrelated individuals in the CPS and the Census, it is difficult to make direct comparisons between the two series. Moreover, the CPS estimates for nonwhite unrelated individuals are in several instances based on small samples and are therefore subject to relatively large sampling errors. With these considerations in mind, there appears to be close agreement between the CPS and Census estimates for 1949; however, in 1959, the relation between these two series was rather erratic. For the country as a whole and for nonfarm residents there was no significant difference between the two series. For farm residents Census estimates appear to be about \$300, or 50 percent, higher than CPS.

Estimates of aggregate income for 1949 and 1959 are available from the Current Population Surveys and from the decennial censuses. For 1959, the decennial census obtained 95 percent of the OBE estimates whereas CPS reached only 87 percent (see table A-1). The comparison is somewhat more difficult to make for 1949 because two different estimates are available from the decennial census. The aggregate income based on the family income statistics was only 81 percent of the OBE estimate; but family income was badly understated in the 1950 Census because income information was obtained for the family head and for all other persons *as a group*, not individually. The aggregate based on the income reports for persons in the 1950 Census was 91 percent of the OBE total, whereas the comparable CPS aggregate was only 84 percent of the OBE figure. Two questions arise at this point: (a) why are the income aggregates based on the decennial census higher than those based on CPS; and (b) why are the 1960 Census results more complete in relation to the OBE total than those obtained in the 1950 Census?

Although the same income definitions were used in the CPS and in the decennial census, the results are not exactly comparable because of differences in the definition of the income-receiving unit. The census figures contain more unrelated individuals because (a) members of the Armed Forces living on military installations are counted as unrelated individuals in the census but are excluded in the CPS; and (b) unmarried college students living away from home are counted as unrelated individuals in the census but as members of their parents' families in the CPS. Although the difference in the number of unrelated individuals is relatively large, it accounts for only a minor part of the discrepancy in aggregate income in the two series.

The reason for the higher Census aggregate can be clearly seen in table A-18, which shows the distribution of families and unrelated individuals by total money income in 1959 based on the March 1960 CPS and the 1960 Census. There is



Table A-18.—COMPARISON OF CPS AND CENSUS ESTIMATES OF FAMILIES AND UNRELATED INDIVIDUALS, BY TOTAL MONEY INCOME IN 1959

[In millions]

Total money income	Families and unrelated individuals		Families	
	Census	CPS	Census	CPS
Total.....	58.3	55.8	45.1	45.1
Under \$2,000.....	13.6	12.1	5.9	6.0
\$2,000 to \$3,999.....	10.9	11.1	8.0	8.8
\$4,000 to \$5,999.....	12.1	12.6	10.5	11.2
\$6,000 to \$9,999.....	14.7	14.3	13.9	13.6
\$10,000 to \$14,999.....	4.9	4.3	4.7	4.1
\$15,000 to \$24,999.....	1.5	1.1	1.5	1.1
\$25,000 and over.....	0.6	0.3	0.6	0.3

Source: 1960 Census data from *1960 Census of Population*, Vol. I, *Characteristics of the Population*, Part 1, U.S. Summary, table 95; and CPS data from U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, No. 35, table 5.

a difference of nearly \$30 billion between these two series. The CPS estimates total \$303 billion whereas the 1960 Census figures add to \$332 billion. Nearly all of the difference is accounted for by the fact that the 1960 Census obtained an appreciably larger number of high-income families. An examination of the two distributions shows rather close agreement near the bottom of the distribution, but wide differences at the top. The 1960 Census reported more families and unrelated individuals at the lowest income level primarily because, as previously noted, the decennial census counts members of the Armed Forces living on military posts and unmarried college students living away from home as unrelated individuals. The CPS excludes the former and counts unmarried college students as part of their parents' families. These groups add very little to the 1960 Census aggregate income, several billion dollars at most.

If the comparison is restricted to families, there is almost exact agreement in the numbers at the bottom income level. The 1960 Census, however, contains about 1.3 million more families with incomes above \$10,000, and these families account for practically all of the aggregate difference between the two series. In other words, most of the income missing from the annual CPS income surveys is not distributed throughout the income range, but is highly concentrated in the top income levels.

Why does the CPS indicate fewer high-income families than the census? Two possible answers come to mind, relating to sampling variability and bias. Conceivably the CPS estimates of high-income families are subject to very large sampling errors; or perhaps there is a bias in the CPS which tends to make that survey produce a chronic shortage in the number of high-income families. There is no evidence to support either of these theories. If sampling error were a factor, then some of the CPS samples should have produced overestimates of the number of high-income families during the past 15 years. In a sample as large as the CPS an estimate with a large sampling error should be overstated about as often as it is understated. This has not taken place in CPS because the number of high-income families is consistent from year to year and is not subject to wide unexplained fluctuations.

It is most unlikely that the CPS sample has a bias that causes a chronic shortage in the number of high-income families. To militate against the intrusion of bias, the most rigorous controls are used in the selection of the sample, the listing procedures, and all other phases of the design and selection of the sample.

Several other explanations are possible but none are conclusive. One hypothesis is that CPS income estimates are understated primarily because respondents are unable or unwilling to provide accurate answers, or because they tend to forget minor or irregular sources of income. The very first income report based on the CPS, published by the Bureau of the Census (in May 1947), stated:

In addition to sampling variations, the figures are subject to biases due to errors of response and nonreporting. In most cases the schedule entries for income are based on memory rather than on records, and in the majority of instances on the memory or knowledge of some person, usually the wife of the household head, who is not the principal income recipient. . . . Memory bias in income estimates derived from field surveys probably produces underestimates, because the tendency is to forget irregular sources of income. Other biases of reporting are due to misrepresentation or to misunderstandings as to the scope of the income concept.<sup>13</sup>

Since the missing CPS income is caused by a shortage of high-income families, it seems very unlikely that the deficiency is due to faulty memory, poor choice of respondent, nonresponse, and willful misstatements. Evidence to support this view is available from the intensive studies that were made after the 1950 Census to find out why the income estimates produced by the Census Bureau surveys were too low. All these tests started with the assumption that income reports obtained by standard procedures used in Census Bureau surveys are defective for the reasons stated above. None of these surveys turned up the missing income. After the 1950 Census an intensive reinterview survey was made, using a more detailed questionnaire and better qualified and better trained interviewers than had been used in the census; but the reinterview survey produced little, if any, additional income. A comparison of 1950 Census reports with tax returns; Bureau of Old-Age, Survivors, and Disability Insurance wage records; and income reports obtained by the Survey Research Center of the University of Michigan, turned up no substantial amounts of missing income. Matching studies of Census reports for identical families interviewed in the census and in the annual Current Population Surveys in 1950 and in 1960 offered no clues regarding the missing income. In short, this hypothesis is not supported by the results of field tests.

Another hypothesis attempts to relate the shortage of high-income families in the CPS to nonresponse rather than to reporting error. There is some evidence to support this view. There are two types of nonresponse in the income surveys conducted by the Bureau of the Census. The first is called "Type A" and refers to households for which no information whatever is obtained regarding labor force status, income, or any other subject because



no one was at home during repeated visits, the occupants were temporarily absent, refused to be interviewed, or did not provide information for other reasons. These households, amounting to about 5 percent of the total, are implicitly represented in the CPS tabulations because the sample weights for interviewed households are increased as a means of substituting for them. An unpublished analysis made by the Census Bureau of households that were Type A noninterviews in either April or July 1959 (but not in both months) suggests that these households have about the same income distribution as households that are interviewed.

The second type of noninterview in the CPS income surveys comes from households that provide labor force information but do not respond to the income questions. No substitutions were made for these households, and there were no adjustments of sample weights in the March 1960 CPS. They were excluded from the income tabulations. According to the 1960 CPS-Census matching study, about nine-tenths of the people who did not report on income in the CPS in March 1960, did provide such information in the census. This study shows that nonrespondents in the CPS have somewhat higher than average incomes. The median income in the 1960 Census of men who did not report on income in the CPS was \$4,900, compared with a median of \$4,300 for men who did report in the CPS. More significant is the fact that nonrespondents in the CPS appear to contain a larger proportion of men with incomes over \$10,000. About 6 percent of the male respondents in the CPS had incomes over \$10,000, whereas about 13 percent of the male nonrespondents in CPS reported incomes over \$10,000 in the census. Female nonrespondents in CPS also have considerably higher average incomes than those who responded. This factor would also tend to reduce the number of high-income families in the CPS.

A third hypothesis attempts to explain the larger 1960 Census estimates of high-income families in terms of a possible bias in the 25-percent sample. This view does not stand up under close examination. Several preliminary analyses conducted by the Census Bureau staff do suggest that there may be biases in the 25-percent sample because there are significant differences between some estimates for which complete count and sample data are available. For example, the sample contains an undercount of older persons. Males 65 years old and over are understated by about 2.7 percent and females, by 1.8 percent. Similarly, a shortage of nonrelatives and primary individuals has been noted. None of the evidence uncovered to date, however, points specifically to an overcount of high-income families in the 25-percent sample. Even less likely is the possibility that the overcount is as much as one-third, which is the difference between the CPS and Census estimates of the number of families with incomes over \$15,000.

A fourth hypothesis attributes the larger number of high-income families in the 1960 Census primarily to better reporting induced by the self-enumeration procedure used to collect sample information in the 1960 Census. It seems

reasonable to many people that higher income respondents might have provided more accurate reports in the 1960 Census because they were asked to complete their own returns and to sign them. Here again the evidence from the CPS-Census matching studies is most revealing. A comparison of CPS and Census income reports for a sample of persons shows no tendency toward overreporting or underreporting at any income level in either 1950 or 1960. It appears, therefore, that the accuracy of reporting was about the same in the CPS and the census, and that the higher income families are missing from the CPS figures, rather than that they are in the distribution but classified at too low a level.

It has been argued that the results of the CPS-Census matching study may not be valid because the answers of respondents might have been conditioned as a result of having been interviewed in two successive months; that is, people who gave one answer in the March CPS may tend to repeat that answer in April in the census. There is no evidence to support this view. Indeed, the CPS-Census matching study shows considerable variability of response, since about half the families were classified in different \$500-income levels in the two surveys. Thus, there were fairly large gross errors in reports, suggesting little conditioning. These errors, however, tended to offset one another, producing little change in the income distribution.

Since the 1960 Census had more high-income families than the CPS, one might well ask why the same thing did not happen in 1950. To some extent it did, but the tendency was hidden by other factors which tended to lower the aggregate. As previously explained, income data were collected in the 1950 Census by asking three income questions for the family head and *for all other relatives as a group*. This differed from the procedure used in the CPS where income questions are asked for each member of the family individually. Moreover, where income was reported only for the family head, that amount was used as the total income for the family even where no information was obtained for other family members.

There is no question that this procedure produced an underestimate of family income in the 1950 Census because aggregates based on the 1950 Census family statistics accounted for only 81 percent of the OBE total whereas aggregates based on statistics for persons, which were collected in the same way as in the CPS, accounted for 91 percent of this total. In the 1960 Census, where income was reported for each person individually, as in the CPS, both the family aggregate and the persons' aggregate represent about 95 percent of the OBE total. Therefore, the procedure used to collect family income statistics in the 1950 Census produced a downward bias in the results. Nevertheless, the 1950 Census obtained 20 percent more families with incomes over \$10,000 than did the CPS in the same year. Thus the tendency for CPS to be deficient in high-income families was present even in 1950, but it could not be seen as clearly as in 1960.



Why did the proportion of aggregate money income covered in the decennial census increase from 91 percent to 94 percent between 1949 and 1959, and why did the CPS coverage also increase from 84 percent to 87 percent during the same period? Although the answer is at best conjectural, one factor must be the increase in the relative importance of wages and salaries as a component of the total. In 1949, wages and salaries represented 67 percent of the total as compared with 71 percent in 1959. Since this type of income is much more completely reported in household surveys than are other types, it follows that aggregate income coverage in household surveys will tend to improve as wages and salaries gain in importance. There may also be other contributing factors. Perhaps the public has become more receptive to income surveys over the years, and as a result the quality of response has improved. Or it may be that respondents are providing more accurate reports than they did 10 years ago because of increases in educational attainment. Also, more people are now required to file tax returns and therefore keep better records or are better able to remember their income. An improvement in population coverage in the census or the annual surveys could also account for some reduction in the underreporting of income.

### **CPS-Census matching study**

About one-fourth of the persons who were in the March 1960 income supplement to the CPS were also asked to report income information in the 1960 Census. Similarly, about one-fifth of the persons in the March 1950 income supplement were asked to report on income in the 1950 Census. Upon completion of each census, an attempt was made to match the reports obtained for identical persons in the CPS and the census, using name, address, age, sex, color, and other means of identification. In 1960, Census records were found for about 93 percent of the persons who were in the CPS income sample. After the records were matched a comparison was made of the amount of income reported in each survey. A summary of the results of such a comparison with respect to total money income is shown in table A-19. The income concept and period covered by both surveys were the same. Therefore, variations in the responses are not due to conceptual differences between the two surveys but rather to a variety of other factors including, in 1950, differences in the quality of the enumerators, and variability of response due to such things as the memory factor and change in respondents. In addition to the factors noted above, variations between the CPS and the Census for 1960 could be due to the use of self-enumeration in the census as compared with direct enumeration in the CPS.

Table A-19 shows considerable variations in the reports received for identical persons in each survey; however, these variations tended to cancel each other, leaving the overall distributions unchanged. This was true for both males and females in both censuses. This table shows no significant differences in the medians (which agree nearly to the dollar), the distributions by income levels, or the proportions of income recipients. One of the hallmarks of an improved

Table A-19.—CONSISTENCY OF TOTAL MONEY INCOME REPORTING IN THE CPS AND THE CENSUS, FOR PERSONS 14 YEARS OLD AND OVER, BY SEX: 1960 AND 1950

Comparison of CPS and Census	Male		Female	
	1960	1950	1960	1950
Total reporting on income in CPS and Census.....	100	100	100	100
Percent in same interval in both.....	56	62	73	77
Percent in higher interval in CPS.....	20	21	14	13
Percent in higher interval in Census.....	24	18	13	11
Income recipients in CPS and Census.....	100	100	100	100
Percent in same interval in both.....	56	65	69	77
Percent in higher interval in CPS.....	19	20	15	13
Percent in higher interval in Census.....	24	16	16	10
Persons reporting no income in CPS.....	100	100	100	100
Percent with income in Census.....	26	43	12	12
Persons reporting no income in Census.....	100	100	100	100
Percent with income in CPS.....	34	38	14	14
Median income:				
CPS.....	\$4,327	\$2,514	\$1,508	\$1,152
Census.....	4,406	2,444	1,524	1,163
Nonrespondents in CPS:				
Percent reporting in Census.....	90	75	92	85
Median income in Census.....	\$4,862	\$3,095	\$2,491	\$1,000
Nonrespondents in Census:				
Percent reporting in CPS.....	88	88	94	92
Median income in CPS.....	\$3,216	\$2,373	\$1,093	\$1,000

Source: Unpublished data of the Bureau of the Census.

survey technique in the collection of income data from households is the ability to identify persons with small amounts of income, often not reported. In the case of women there was a striking consistency in the results obtained in both 1950 and 1960. Each survey reported income for about 12 to 14 percent of the women who were classified as not having income in the other survey. The results were somewhat different for men. In 1960, about one-fourth of the men without income in the CPS were found to have some income in the census. On the other hand, about one-third of the men without income in the census were found to have some income in the CPS. In 1950, about 40 percent of the men without income in each survey were found to have income in the other survey.

Perhaps the major conclusion suggested by table A-19 is that the two-stage self-enumeration procedure used in the 1960 Census did not produce results appreciably different from those obtained by the conventional direct enumeration methods used in the CPS. It could be argued, in view of the difficulty of recruiting enumerators of comparable ability with those used in the CPS, that the 1960 Census results might have been worse than the CPS results if direct enumeration had been attempted. This argument, however, is not supported by the facts, since the 1950 CPS and Census medians and distributions are also identical, and the same interview methods were used to collect both sets of data.

Since income information for persons in the census was first obtained in the CPS, the Census report might be regarded as a conditioned response rather than as an independent estimate. It is undoubtedly true that some of the Census reports were conditioned by the CPS response. In view, however, of the vast differences in the reports for identical persons in both surveys, it is hard to



imagine that this was a major factor. In 1960, only 56 percent of the males reported incomes that were in the same class interval in both surveys; about 20 percent reported higher incomes in the CPS and about 24 percent reported higher incomes in the census. For women, the consistency of response in 1960 was greater than for men, with about three-fourths reporting incomes in the same class interval. It must be remembered, however, that a very large proportion of women do not receive any income; and it is much easier for them to recall whether or not they had any income than to estimate the specific amount.

There is some evidence that consistency of response between the CPS and the census was somewhat greater in 1950 than in 1960. The differences however, are not very striking. Among men, about 62 percent were in the same class interval in the CPS and the census in 1950, compared with 56 percent in 1960. Among women, 77 percent were in the same class interval in 1950, compared with 73 percent in 1960. Where differences were found, the census data in 1960 show a tendency to be higher, whereas the reverse was true in 1950. Thus, for example, among male income recipients in 1950, 20 percent were in a higher CPS class interval and 16 percent were in a higher census class interval. In 1960, the CPS was higher in 19 percent of the cases and the census was higher in 24 percent. The corresponding differences for females were not significant.

In both 1950 and 1960, the great majority of persons who did not report on income in one survey did report in the other. The matching study therefore provides a fairly good indication of the income of nonrespondents in both the census and the CPS. In 1960, 90 percent of the males who did not report on income in the CPS did report in the census. The median for this group (\$4,900) was above the average for persons who did report in the CPS (\$4,300). Conversely about nine-tenths (88 percent) of the males who did not report on income in the census did report in the CPS. The median for this group (\$3,200) was considerably below the median obtained for men who did report in the census (\$4,400). In the 1950 Census there was also some tendency for male nonrespondents in the CPS to have somewhat higher incomes than those who reported (\$3,100 for nonrespondents as compared with \$2,500 for respondents), whereas nonrespondents in the census had about the same average income (\$2,400) as respondents.

Among women, nine-tenths of nonrespondents in the March 1960 CPS reported on income in the census; and the average, as for men, was considerably higher (\$2,500) than the average for respondents (\$1,500). Similarly, nine-tenths of the women who did not report on income in the 1960 Census did report in CPS. The average for this group (\$1,100), again as for men, was lower than the average for respondents (\$1,500). In 1950, women nonrespondents in the CPS and the census had about the same average income as respondents (\$1,000).

The figures set forth show differences between the CPS and the census in terms of total income for 1950 and 1960. Similar comparisons by type of income were not made in 1950. They are available, however, for 1960, and are summarized in table A-20.

**Table A-20.—CONSISTENCY OF REPORTING BY TYPE OF INCOME IN 1959 IN THE CPS AND THE CENSUS, FOR PERSONS 14 YEARS OLD AND OVER, BY SEX: 1960**

Comparison of CPS and Census	Male			Female		
	Wage or salary income	Self-employment income	Income other than earnings	Wage or salary income	Self-employment income	Income other than earnings
Recipients of specified type of income in CPS and Census.....	100	100	100	100	100	100
Percent in same interval in both.....	64	42	60	74	52	67
Percent in higher interval in CPS.....	16	27	21	12	32	17
Percent in higher interval in Census....	20	31	19	14	16	16
Persons without specified type of income in CPS.....	100	100	100	100	100	100
Percent with specified type in Census...	20	5	13	5	1	8
Persons without specified type of income in Census.....	100	100	100	100	100	100
Percent with specified type in CPS.....	19	6	13	6	1	7
Median income:						
CPS.....	\$4,552	\$2,959	\$746	\$1,926	\$1,056	\$739
Census.....	4,630	2,855	732	1,938	961	715

Source : Unpublished data of the Bureau of the Census.

The consistency of reporting in the CPS and the census for wages and salaries and income other than earnings is very similar to that described above for total income. For both men and women the medians reported for each type of income were virtually identical in the CPS and the census, as were the proportions of income recipients and the distributions by income levels. Similarly, the variability of response was about the same as for total income. About three-fifths of recipients were in the same income levels; 16 percent were in a higher class interval in the CPS than in the census, and 20 percent were in a higher interval in census than in the CPS.

Although the median self-employment income was about the same in the CPS as in the census, the variability of response was much greater for this item than for wages or salaries or for income other than earnings. Only 42 percent of the men reporting this type of income were in the same class interval in both surveys; 27 percent were in a higher CPS class interval, and 31 percent were in a higher Census class interval. This pattern is very similar to that obtained in the 1950 CPS-Census matching study for persons classified as self-employed at the time of the census. In that study it was found that only 31 percent of the income recipients were in the same class interval in the CPS and the Census, 38 percent were in a higher CPS class interval, and 31 percent were in a higher Census class interval. In 1950, the median income for self-employed workers in the CPS was \$1,800 compared with \$1,500 in the census.<sup>14</sup>

At first glance the similarity of the CPS and the Census medians for self-employment income seems inconsistent with the earlier finding that the 1960



Census had a considerably higher aggregate self-employment income than the CPS. As previously noted (see table A-1) the Census aggregate for self-employment income was 112 percent of the OBE total compared with only 91 percent for the CPS. The larger Census aggregate, despite the similarity of the median self-employment income, is attributable to the considerably larger number of persons with self-employment income reported in the census. In the 1960 Census there were 11.4 million persons with self-employment income, compared with only 10.4 million in the CPS.

The Census had fewer farm residents with self-employment income (2.8 million, compared with 3.3 million in the CPS), but considerably more nonfarm residents with self-employment income (8.6 million in the Census, compared with 7.2 million in the CPS). The larger Census aggregate therefore appears to be due primarily to the considerably larger number of persons with nonfarm self-employment income reported in the census. It is hard to tell which estimate of the number of nonfarm residents with self-employment income is more reasonable. There is some possibility that the Census estimate is too high because of the misclassification of wages and salaries as self-employment income.

### Results of reinterview surveys

On completing the field work in the 1950 and 1960 Censuses, intensive reinterview surveys were conducted with relatively small samples of households for the purpose of detecting possible biases in the census results. About 25,000 households were reinterviewed in 1950, but income information was obtained for only about 5,000 households that were in the 20-percent sample. In 1960, the sample consisted of about 3,400 households previously included in the 25-percent Census sample.

Reinterview surveys are intended to serve as benchmarks against which the census results can be compared. For this reason, the special measures described below were employed to help assure that more accurate results would be obtained.<sup>15</sup> Partly because of these measures, the field cost per person in the 1950 reinterview survey was about 20 times that in the census.

1. In the reinterview survey, the income information was obtained whenever possible from the person himself; whereas in the census, information for all household members was obtained from any responsible member of the household.

2. In contrast to the more global questions used in the census, detailed "probing" questions were asked in the reinterview survey. In 1950, questions were asked for all three types of income that were included in the census—wages and salaries, self-employment, and income other than earnings. The reinterview survey, in 1960, was restricted to income from self-employment and to income other than earnings.

3. For the reinterview survey, superior interviewers were selected and given more intensive training and closer supervision than was possible in the census.

4. The information obtained in the original census interview and in the reinterview was compared, case by case, and attempts were made to reconcile

discrepancies in the field. In 1950, the reinterview survey enumerator had the census reports with him, and he tried to account for differences during the interview. In 1960, the results were compared in the office, and a special visit was made to reconcile discrepancies.

Despite these efforts to obtain more accurate answers, the reinterview survey results have several shortcomings. In the first place, the accuracy of the information depends on how well the interviewers do their job, on the adequacy of the information provided by the respondents, and on their willingness to cooperate. In addition, the effectiveness of the reinterview survey is reduced by the length of the interval between the two surveys. In 1950, most of the field work was not done until August or September, or about 4 to 5 months after the completion of the census, and 8 to 9 months after the end of the calendar year to which the income data pertained. In 1960, 1,400 households were interviewed in July, and the remaining 2,000 were not interviewed until October.

In general, the reinterview surveys in 1950 and 1960 found a relatively large number of persons with small amounts of income who had reported no income in the census. For persons who reported \$1 or more of income in both surveys, the overall results were very similar despite considerable variability of individual response. Table A-21 shows that in 1960 about 9 percent of the women who reported no income in the reinterview survey were found to have reported \$1 or more of income in the census, whereas proportionately twice as many women without income in the census were found to have reported \$1 or more of income in the reinterview survey. These results are almost identical with those shown for 1950. The net effect of this difference was the addition of several million women with relatively small amounts of income to the reinterview survey distributions. The average income for women, however, was about the same in the census and the reinterview survey, and the distributions by income level were also very similar. In the aggregate, therefore, the reinterview survey results do not differ substantially from those obtained in the census.

The figures for men show essentially the same pattern for 1950 and 1960 as those described for women. Here again the averages and the distributions by income levels were very similar for both surveys; there was also a tendency for the reinterview survey to find a somewhat larger number of income recipients.

Table A-21 also shows that the variability of response in the reinterview surveys is very similar to that obtained in the CPS-Census matching study. In 1950 and 1960 about three-fifths of the men were in the same income interval in both surveys; the remaining two-fifths were more or less equally divided between those who were in a higher interval in the census, and those who were in a higher interval in the reinterview survey. In each year there was a tendency for a slightly larger proportion to report higher incomes in the reinterview survey. The figures for women were very similar to those for men, except that a somewhat larger proportion of women were in the same income interval in both surveys.



**Table A-21.—CONSISTENCY OF TOTAL MONEY INCOME REPORTING IN THE CENSUS AND THE REINTERVIEW SURVEY, FOR PERSONS 14 YEARS OLD AND OVER, BY SEX: 1960 AND 1950**

Comparison of Reinterview Survey (RES) and Census	Male		Female	
	1960	1950	1960	1950
Total reporting on income in RES and Census.....	100	100	100	100
Percent in same interval in both.....	60	61	71	76
Percent in higher interval in RES.....	24	24	20	16
Percent in higher interval in Census.....	16	16	10	8
Income recipients in RES and Census.....	100	100	100	100
Percent in same interval in both.....	63	62	66	74
Percent in higher interval in RES.....	22	22	21	15
Percent in higher interval in Census.....	16	16	13	11
Persons reporting no income in RES.....	100	100	100	100
Percent with income in Census.....	25	18	9	8
Persons reporting no income in Census.....	100	100	100	100
Percent with income in RES.....	41	39	20	17
Median income:				
RES.....	\$4,501	\$2,511	\$1,578	\$1,146
Census.....	4,507	2,575	1,501	1,083
Nonrespondents in RES:				
Percent reporting in Census.....	91	73	75	76
Median income in Census.....	\$4,182	\$1,756	\$887	\$1,065
Nonrespondents in Census:				
Percent reporting in RES.....	91	67	80	74
Median income in RES.....	\$4,833	\$2,710	\$2,283	\$1,602

Source : Unpublished data of the Bureau of the Census.

## NOTES

<sup>1</sup> The results of these studies are summarized in *An Appraisal of the 1950 Census Income Data, Studies in Income and Wealth*, Princeton University Press, Vol. 23, 1958. See reports by Herman P. Miller and Leon R. Paley, "Income Reported in the 1950 Census and on Income Tax Returns"; and B. J. Mandel, Irwin Wolkstein, and Marie M. Delaney, "Coordination of Old-Age and Survivors Insurance Wage Records and the Post-Enumeration Survey."

<sup>2</sup> Ibid. Article by Marius Farioletti, "Some Income Adjustment Results from the 1949 Audit Control Program."

<sup>3</sup> Ibid. Article by Selma F. Goldsmith, "The Relation of Census Income Distribution Statistics to Other Income Data."

<sup>4</sup> Selma F. Goldsmith, "Size Distribution of Personal Income," *Survey of Current Business*, April 1958, p. 14.

<sup>5</sup> Selma F. Goldsmith, "Low-Income Families and Measures of Income Inequality" (Mimeograph). Paper prepared for December 1961 meetings of the Catholic Economic Association, p. 8.

<sup>6</sup> The following are three exceptions to the general rule: *Income of Hawaii*, published in 1953, contains personal income estimates for four counties; *Income in Alaska* contains 1957 personal income estimates for the southeastern, central, and western parts of that State; and "Measuring Regional Market Growth—A Case Study of the Delaware River Area," *Survey of Current Business*, January 1959, contains personal income estimates for 8 subregions in this 53-county area.

<sup>7</sup> This report contains an excellent summary of the sources of income data for small areas including the names and addresses of all agencies that were engaged in the preparation of such estimates in the spring of 1960.

<sup>8</sup> Statement of Richard S. Ostheimer, Director of Research, *Life* magazine at Hearings on Mid-Decade Census, Subcommittee on Census and Government Statistics, 87th Cong., 1st sess., November 29 and 30, 1961, p. 474.

<sup>9</sup> See Sales Management, *Survey of Buying Power*, July 10, 1960.

<sup>10</sup> Ibid., p. 56.

<sup>11</sup> Ibid., p. 60.

<sup>12</sup> Ibid., p. 60.

<sup>13</sup> U.S. Bureau of the Census. *Family and Individual Money Income in the United States: 1945 and 1944*, Series P-S, No. 22, May 1947, p. 5.

<sup>14</sup> Herman P. Miller, "An Appraisal of the 1950 Census Income Data," *Journal of the American Statistical Association*, March 1953, p. 35.

<sup>15</sup> For a more detailed description of these procedures see, Bureau of the Census, *The Post-Enumeration Survey: 1950*; Technical Paper No. 4, 1960.



## APPENDIX B

# COMPUTATION OF CONSTANT DOLLARS, QUINTILES, AGGREGATES, AND GINI RATIOS

### Constant dollar computations

Each year since 1947 the Bureau of the Census has published a report (Series P-60) showing the distribution of families and unrelated individuals by income levels, cross-classified by such characteristics as urban-rural residence; age, sex, color; employment status, occupation and industry of head; size of family, and number of children. Similar tabulations were made for males and females classified by the amount of their own income and by various personal characteristics.

The income distributions shown in these reports are in current dollars, and the classes used have generally been \$500 levels up to \$4,999; \$1,000 levels from \$5,000 to \$7,999; \$8,000 to \$9,999; \$10,000 to \$14,999; \$15,000 to \$24,999; and \$25,000 and over. For purposes of this study, the published current-dollar distributions were converted into distributions of constant dollars in terms of 1959 purchasing power, and also into distributions based on the income limits for each fifth of all families for each year. A brief description of the procedures used to make these conversions follows.

A punchcard was prepared for each column of each table, showing the number of families at each income level. For example, a single punchcard might represent 2-person families in 1950. The first field in this card would represent the total number of 2-person families; the second field, the number with income under \$500; the third field, the number with incomes from \$500 to \$999; etc., until each income level was accounted for.

The second step required the subdivision of broad income intervals (such as \$7,000 to \$9,999, and \$10,000 to \$14,999) into smaller intervals to provide a more refined basis for interpolation to convert to constant dollars, and also to compute aggregate income. This subdivision was accomplished from generalized tables prepared from Pareto curves that were fitted to frequency distributions having varying degrees of concentration in the open-end limits.<sup>1</sup> The specific factors used for each year and for each interval are shown below.

1947-48

$\frac{F_6}{F_{10}}$	$f_{6-10}$	$f_{6-7}$	$f_{7-8}$	$f_{8-9}$	$f_{9-10}$
Under 2.0.....	100	35	27	21	17
2.0-2.9.....	100	40	27	19	14
3.0-3.9.....	100	44	27	17	12
4.0+.....	100	45	27	17	11

$\frac{F_6}{F_{10}}$  = ratio of cumulative frequencies above \$6,000 to cumulative frequencies above \$10,000.

$f_{m-n}$  = frequencies between \$m000 and \$n000 as a percent of the frequencies between \$6,000 and \$10,000.

1949-58

$\frac{F_7}{F_{10}}$	$f_{7-10}$	$f_{7-8}$	$f_{8-9}$	$f_{9-10}$
Under 1.9.....	100	43	32	25
2.0-2.4.....	100	47	31	22
2.5+.....	100	50	30	20

$\frac{F_7}{F_{10}}$  = ratio of cumulative frequencies above \$7,000 to cumulative frequencies above \$10,000.

$f_{m-n}$  = frequencies between \$m000 and \$n000 as a percent of the frequencies between \$7,000 and \$10,000.

1959-60

$\frac{F_8}{F_{10}}$	$f_{8-10}$	$f_{8-9}$	$f_{9-10}$
Under 2.0.....	100	58	42
2.0-2.4.....	100	62	38
2.5+.....	100	65	35

$\frac{F_8}{F_{10}}$  = ratio of cumulative frequencies above \$8,000 to cumulative frequencies above \$10,000.

$f_{m-n}$  = frequencies between \$m000 and \$n000 as a percent of the frequencies between \$8,000 and \$10,000.

1951-60

$\frac{F_{10}}{F_{15}}$	$f_{10-15}$	$f_{10-11}$	$f_{11-12}$	$f_{12-13}$	$f_{13-14}$	$f_{14-15}$
Under 2.9..	100	32	24	18	14	12
3.0-3.9....	100	35	24	18	13	10
4.0+.....	100	37	25	17	12	9

$\frac{F_{10}}{F_{15}}$  = ratio of cumulative frequencies above \$10,000 to cumulative frequencies above \$15,000.

$f_{m-n}$  = frequencies between \$m000 and \$n000 as a percent of the frequencies between \$10,000 and \$15,000.

After the detailed frequency distributions were prepared, the income limit for each interval was adjusted by a factor representing the change in the Consumer Price Index, using 1959 as the base. The following factors were used for each year:

1947.....	76.6	1954.....	92.1
1948.....	82.5	1955.....	91.9
1949.....	81.7	1956.....	93.3
1950.....	82.5	1957.....	96.5
1951.....	89.1	1958.....	99.1
1952.....	91.1	1959.....	100.0
1953.....	91.8	1960.....	101.5

The Consumer Price Index is basically a measure of changes in prices of the goods and services bought by urban "wage earner and clerical worker families" representing about two-thirds of all persons living in urban places, and about two-fifths of the total United States population. The same index was used for all groups because separate price indexes have not been developed for various income levels. Nor did the available data permit adjustment for the fact that the price index is strictly applicable to consumer expenditures for goods and services, whereas the family income data also cover family savings and income tax payments. For these and other reasons, the estimates, particularly in the income range over \$10,000, are to be regarded as approximations.



## Computation of distributions by quintiles

The first step in preparing the distributions of income by quintiles was the calculation for each year of the dollar value representing the income limit for each fifth of families ranked from lowest to highest according to income. These dollar values are shown in table B-1. Thus, for example, in 1950, the poorest 20 percent of the families had incomes under \$1,665, the wealthiest 20 percent had incomes over \$5,357, and the wealthiest 5 percent had incomes over \$9,070. The punchcards prepared for each column of each table, showing the number of families by income level, were then put through a computer program which provided by straight-line interpolation the number of families within the income limits designated by the quintile values. In effect, therefore, the CPS data were retabulated for each year, using the income limits of the quintiles rather than the dollar values shown in the published reports.

Table B-1.—DOLLAR VALUES USED TO COMPUTE CHARACTERISTICS OF FAMILIES, BY QUINTILES, AND FOR TOP 5 PERCENT: 1947 TO 1960

Year	Lowest quintile	Second quintile	Middle quintile	Fourth quintile	Highest quintile	Top 5 percent
1960.....	Under \$2,798	\$2,799-\$4,812	\$4,813-\$6,472	\$6,473-\$8,992	\$8,993 and over	\$14,385 and over
1959.....	Under \$2,713	\$2,714-\$4,612	\$4,613-\$6,209	\$6,210-\$8,548	\$8,549 and over	\$14,010 and over
1958.....	Under \$2,564	\$2,565-\$4,341	\$4,342-\$5,825	\$5,826-\$8,233	\$8,234 and over	\$13,355 and over
1957.....	Under \$2,491	\$2,492-\$4,254	\$4,255-\$5,662	\$5,663-\$7,882	\$7,883 and over	\$12,690 and over
1956.....	Under \$2,451	\$2,452-\$4,119	\$4,120-\$5,511	\$5,512-\$7,672	\$7,673 and over	\$12,460 and over
1955.....	Under \$2,228	\$2,229-\$3,785	\$3,786-\$5,110	\$5,111-\$6,916	\$6,917 and over	\$11,355 and over
1954.....	Under \$2,018	\$2,019-\$3,551	\$3,562-\$4,813	\$4,814-\$6,635	\$6,636 and over	\$10,910 and over
1953.....	Under \$2,132	\$2,133-\$3,634	\$3,635-\$4,870	\$4,671-\$6,605	\$6,606 and over	\$10,245 and over
1952.....	Under \$2,052	\$2,053-\$3,340	\$3,341-\$4,494	\$4,495-\$6,107	\$6,108 and over	\$9,736 and over
1951.....	Under \$1,959	\$1,960-\$3,207	\$3,208-\$4,239	\$4,240-\$5,815	\$5,816 and over	\$9,481 and over
1950.....	Under \$1,665	\$1,666-\$2,860	\$2,861-\$3,822	\$3,823-\$5,356	\$5,357 and over	\$9,070 and over
1949.....	Under \$1,540	\$1,541-\$2,635	\$2,636-\$3,568	\$3,569-\$5,051	\$5,052 and over	\$8,680 and over
1948.....	Under \$1,656	\$1,657-\$2,721	\$2,722-\$3,649	\$3,650-\$5,086	\$5,087 and over	\$9,104 and over
1947.....	Under \$1,580	\$1,581-\$2,561	\$2,562-\$3,469	\$3,470-\$4,926	\$4,927 and over	\$8,968 and over

Source: Derived from U.S. Bureau of the Census, *Current Population Reports—Consumer Income*, Series P-60, annual reports.

## Computation of aggregates

Aggregates were obtained by multiplying the estimated number of families at each income level by the average income for that level. Since \$500 or \$1,000 levels were used below \$10,000 for 1947 to 1949, and below \$15,000 thereafter, the midpoint of each interval below the open end was assumed to be the average. A value of \$19,000 was used for the \$15,000 to \$24,999 interval. In general, the average for the open-end interval (\$10,000 and over for 1947 to 1949, \$15,000 and over for 1950, and \$25,000 and over thereafter) was obtained by fitting a Pareto curve to the data. This average was obtained by substituting in the formula shown below. Where the shape of the curve suggested that the Pareto fit did not apply (i.e., where the frequencies in the open-end interval exceeded those in the adjacent interval), \$20,000 was used as the average for \$10,000 and over, \$24,000 for \$15,000 and over, and \$44,000 for \$25,000 and over.

$$\bar{X} = X \left( \frac{V}{V-1} \right)$$

$$V = \frac{c-d}{b-a}$$

$X$  = lower limit of open-end interval.

$a$  = Logarithm of lower limit of interval preceding open end.

$b$  = Logarithm of lower limit of open-end interval.

$c$  = Logarithm of the sum of the frequencies in the open-end interval and the one preceding it.

$d$  = Logarithm of the frequencies in the open-end interval.

This method of estimating the mean for the upper ranges of an income distribution is based largely on the empirical observations of Vilfredo Pareto during the closing years of the last century. While studying income tax data for various European countries, this investigator found that the upper ranges of the income distribution could be described by a curve of the general type,  $Y = AX^{-V}$ , where  $X$  is the income size and  $Y$  is the number of persons having that income or larger. The logarithmic form of this curve ( $\text{Log } Y = \text{Log } A - V \text{ Log } X$ ) is, of course, a straight line. That is, if the logarithms of the income sizes are charted on a horizontal scale and the logarithms of the number of persons having an income of a particular size or larger are charted on a vertical scale, the resulting points will fall on a straight line. Graphically, the curve would appear as shown in figure B-1.<sup>2</sup>

A mathematical procedure can be devised for estimating the mean for the upper ranges of a curve of this type. The general expression for the mean of the interval from \$10,000 to infinity is shown below. In this expression,  $X$  is the lower limit of the open-end interval and  $Y$  is the number of families and individuals having an income of that amount or greater.

$$\bar{X} = \frac{\int_{10,000}^{\infty} XY dx}{\int_{10,000}^{\infty} Y dx}$$

An expression for  $Y$  in this formula can be obtained by reducing the cumulative form of the Pareto curve ( $Y = AX^{-V}$ ) to its noncumulative form; i.e., the first derivative:

$$\left( Y = -\frac{AV}{X^{V+1}} \right)$$

Substituting this expression in the formula for the mean yields the expression:

$$\bar{X} = \frac{\int_{10,000}^{\infty} X \left( -\frac{AV}{X^{V+1}} \right) dx}{\int_{10,000}^{\infty} -\frac{AV}{X^{V+1}} dx}$$

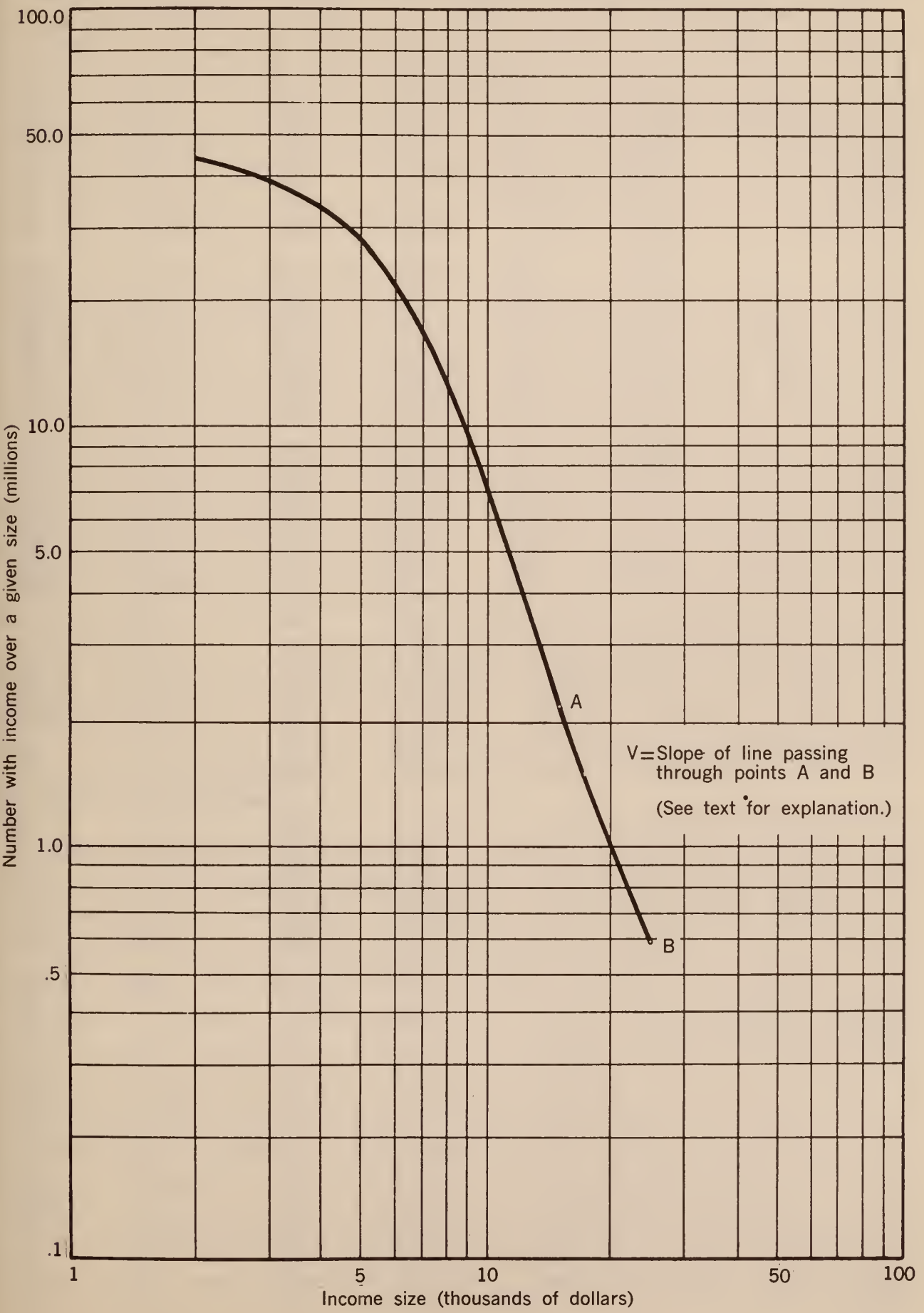
which when reduced gives:

$$\bar{X} = X \left( \frac{V}{V-1} \right)$$



In the above expression,  $X$  is the lower limit of the open-end interval (\$10,000 in this case) and  $V$  is the slope of the income curve, which is a straight line

Figure B-1.—PARETO CURVE SHOWING DISTRIBUTION OF FAMILIES AND UNRELATED INDIVIDUALS, BY INCOME LEVELS: 1959



Source : Herman P. Miller, *Trends in the Income of Families and Persons in the United States, 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.

**Table B-2.—ACTUAL AND COMPUTED ESTIMATES OF ADJUSTED GROSS INCOMES FOR 100 STANDARD METROPOLITAN STATISTICAL AREAS BASED ON INCOME TAX RETURNS FOR 1959**

[Numbers in thousands. Minus sign (–) denotes decrease]

Standard metropolitan statistical area	Actual	Computed	Difference	Difference as a percent of actual
Akron, Ohio.....	\$1,117	\$1,115	-\$2	0.2
Albany-Schenectady-Troy, N.Y.....	1,197	1,213	16	1.3
Allentown-Bethlehem-Easton, Pa.-N.J.....	861	870	9	1.0
Atlanta, Ga.....	1,737	1,725	-12	0.7
Bakersfield, Calif.....	520	547	27	5.2
Baltimore, Md.....	3,308	3,380	72	2.2
Beaumont-Port Arthur, Texas.....	474	511	37	7.8
Birmingham, Ala.....	959	1,042	83	8.7
Boston, Mass.....	5,114	5,362	248	4.8
Bridgeport, Conn.....	825	837	12	1.5
Buffalo, N.Y.....	2,610	2,671	61	2.3
Canton, Ohio.....	579	585	6	1.0
Charleston, W.Va.....	429	431	2	0.5
Charlotte, N.C.....	468	474	6	1.3
Chattanooga, Tenn.-Ga.....	419	425	6	1.4
Chicago, Ill.....	14,615	14,746	131	0.9
Cincinnati, Ohio-Ky.....	2,161	2,155	-6	0.3
Cleveland, Ohio.....	3,904	3,970	66	1.7
Columbus, Ohio.....	1,266	1,295	29	2.3
Dallas, Texas.....	2,037	2,050	13	0.6
Davenport-Rock Island-Moline, Iowa-Ill.....	512	512	-	-
Dayton, Ohio.....	1,346	1,372	26	1.9
Denver, Colo.....	1,838	1,900	62	3.4
Des Moines, Iowa.....	533	543	10	1.9
Detroit, Mich.....	7,694	7,751	57	0.7
Duluth-Superior, Minn.-Wis.....	433	438	5	1.2
Erie, Pa.....	413	434	21	5.1
Flint, Mich.....	630	594	-36	5.7
Fort Worth, Texas.....	991	988	-3	0.3
Fresno, Calif.....	470	528	58	12.3
Gary-Hammond-East Chicago, Ind.....	947	974	27	2.9
Grand Rapids, Mich.....	661	661	-	-
Harrisburg, Pa.....	637	672	35	5.5
Hartford, Conn.....	1,209	1,226	17	1.4
Honolulu, Hawaii.....	784	804	20	2.6
Houston, Texas.....	2,220	2,265	45	2.0
Huntington-Ashland, W.Va.-Ky.Chio.....	344	309	-35	10.2
Indianapolis, Ind.....	1,453	1,474	21	1.4
Jacksonville, Fla.....	758	761	3	0.4
Jersey City, N.J.....	1,238	1,242	4	0.3
Johnstown, Pa.....	326	321	-5	1.5
Kansas City, Mo.-Kans.....	2,038	1,998	-40	2.0
Knoxville, Tenn.....	538	539	1	0.2
Lancaster, Pa.....	433	443	10	2.3
Lansing, Mich.....	491	495	4	0.8
Little Rock-North Little Rock, Ark.....	385	400	15	3.9
Los Angeles-Long Beach, Calif.....	15,098	15,218	120	0.8
Louisville, Ky.-Ind.....	1,215	1,222	7	0.6
Memphis, Tenn.....	871	870	-1	0.1
Miami, Fla.....	1,653	1,820	167	10.1
Milwaukee, Wis.....	2,589	2,595	6	0.2
Minneapolis-St. Paul, Minn.....	2,947	2,996	49	1.7
Mobile, Ala.....	445	463	18	4.0
Nashville, Tenn.....	630	647	17	2.7
Newark, N.J.....	4,004	4,060	56	1.4
New Haven, Conn.....	686	696	10	1.5
New Orleans, La.....	1,377	1,389	12	0.9
New York, N.Y.....	25,918	26,348	430	1.7
Norfolk-Portsmouth, Va.....	719	736	17	2.4
Oklahoma City, Okla.....	805	753	-52	6.5
Omaha, Nebr.-Iowa.....	811	834	23	2.8
Paterson-Clifton-Passaic, N.J.....	2,601	2,607	6	0.2
Peoria, Ill.....	632	751	119	18.8
Philadelphia, Pa.-N.J.....	8,216	8,244	28	0.3
Phoenix, Ariz.....	1,018	1,057	39	3.8
Pittsburgh, Pa.....	4,635	4,662	27	0.6
Portland, Oreg.-Wash.....	1,536	1,553	17	1.1
Providence-Pawtucket, R.I.-Mass.....	1,394	1,396	2	0.1
Reading, Pa.....	486	606	120	24.7
Richmond, Va.....	776	812	36	4.6

— Represents zero.



Table B-2.—ACTUAL AND COMPUTED ESTIMATES OF ADJUSTED GROSS INCOMES FOR 100 STANDARD METROPOLITAN STATISTICAL AREAS BASED ON INCOME TAX RETURNS FOR 1959—Con.

[Numbers in thousands. Minus sign (–) denotes decrease]

Standard metropolitan statistical area	Actual	Computed	Difference	Difference as a percent of actual
Rochester, N.Y.....	\$1,352	\$1,419	\$67	5.0
Sacramento, Calif.....	1,020	1,029	9	0.9
St. Louis, Mo.-Ill.....	3,791	3,761	-30	0.8
Salt Lake City, Utah.....	649	656	7	1.1
San Antonio, Texas.....	896	896	-	-
San Bernardino-Riverside-Ontario, Calif.....	1,298	1,314	16	1.2
San Diego, Calif.....	1,938	1,993	55	2.8
San Francisco-Oakland, Calif.....	6,385	6,394	9	0.4
San Jose, Calif.....	1,410	1,414	4	0.3
Scranton, Pa.....	317	303	-14	4.4
Seattle, Wash.....	2,295	2,300	5	0.2
Shreveport, La.....	409	451	42	10.3
South Bend, Ind.....	469	494	25	5.3
Spokane, Wash.....	469	460	-9	1.9
Springfield-Chicopee-Holyoke, Mass.....	812	822	10	1.2
Stockton, Calif.....	378	(NA)	(NA)	(NA)
Syracuse, N.Y.....	1,072	1,079	7	0.7
Tacoma, Wash.....	564	574	10	1.8
Tampa-St. Petersburg, Fla.....	1,085	1,129	44	4.1
Toledo, Ohio.....	887	893	6	0.7
Trenton, N.J.....	574	575	1	0.2
Tulsa, Okla.....	778	784	6	0.8
Utica-Rome, N.Y.....	516	529	13	2.5
Washington, D.C.-Md.-Va.....	4,315	4,251	-64	1.5
Wichita, Kans.....	598	598	-	-
Wilkes-Barre--Hazleton, Pa.....	477	471	-6	1.3
Wilmington, Del.-N.J.....	855	783	-72	8.4
Worcester, Mass.....	521	500	-21	4.0
York, Pa.....	436	(NA)	(NA)	(NA)
Youngstown-Warren, Ohio.....	909	904	-5	0.6

— Represents zero.

NA Could not be estimated from the published data.

Source: Internal Revenue Service, *Statistics of Income 1959, 1960, and 1961, Income Tax Returns, State and Metropolitan Areas*.

when plotted logarithmically. The method for determining the value of  $V$  has been described above.

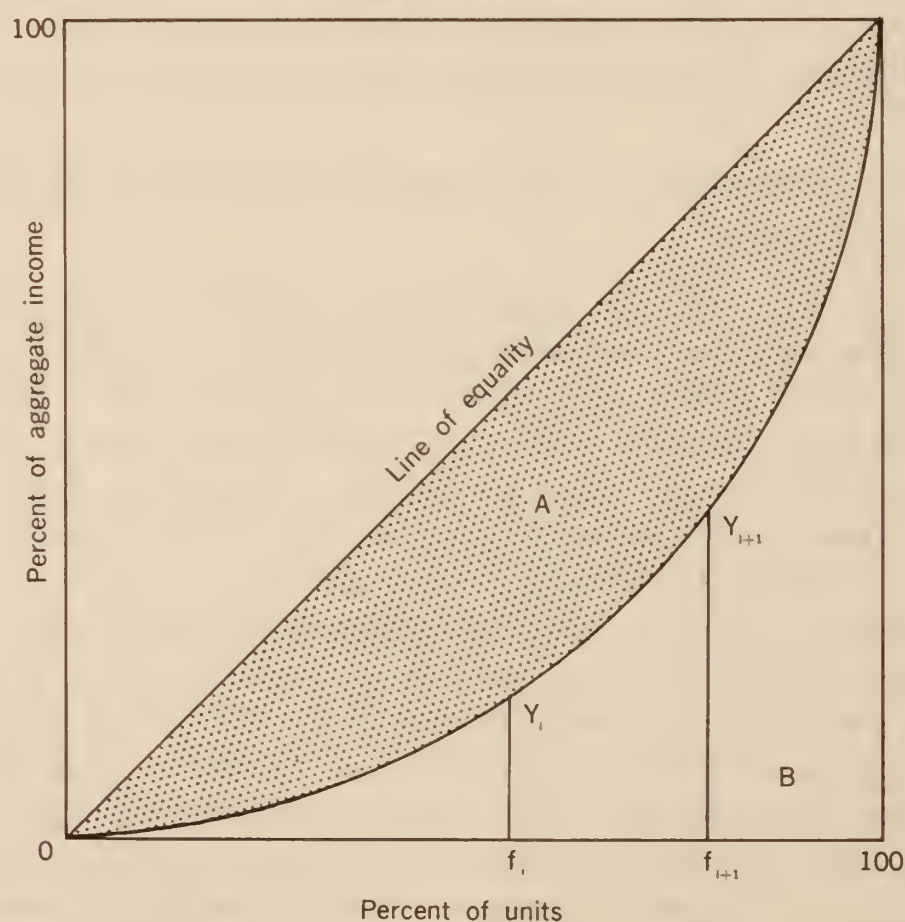
In view of the many different types of income distributions to which Pareto curves were fitted using the procedures described above, a rough test was made of the validity of this method using income tax data for 1959. The Internal Revenue Service has published figures on adjusted gross income, by detailed income classes, for the 100 largest standard metropolitan statistical areas (SMSA's).<sup>3</sup> These figures are based directly on the amounts of income reported on tax returns. Independent estimates were made for each city by consolidating the income classes at the upper end of the distribution into two groups—" \$15,000 to \$25,000" and "\$25,000 and over"—and fitting a Pareto curve to the open-end interval using the procedures previously described. The actual and computed estimates of aggregate income are shown for each SMSA in table B-2. In 69 SMSA's the computed estimates differ from the actual by less than 3 percent; in 19 cases the difference was 3 to 5 percent; in 6 cases it was 6 to 9 percent; and in only 6 cases was it 10 percent or more. These data provide some support for the view that the Pareto curve produces fairly reliable estimates of aggregate income in a wide variety of situations.

Further evidence in support of this position comes from consistency checks that were applied to aggregates obtained from overall distributions and from distributions by major occupation groups. Annual estimates of aggregate income were prepared, using Pareto curves, for 1948 to 1960 for all males, based on overall distributions by income level. Corresponding estimates were prepared by major occupation groups which were summed to obtain an overall aggregate. In only 4 years did the difference between the global estimate and the estimate obtained by summing the occupations differ by as much as 3 percentage points; the more typical difference was 1 or 2 percentage points suggesting that the use of Pareto averages for specific occupations did not produce major changes in the overall aggregate.

### Computation of Gini Index of Concentration

The Gini Index of Concentration is a measure of income concentration that is derived from the Lorenz curve which is obtained by plotting the cumulative percent of units (families or persons) on the  $X$  axis against the cumulative percent of the aggregate income accounted for by these units on the  $Y$  axis, as shown below. If all units had exactly the same incomes, the Lorenz curve would be represented by the diagonal shown in the diagram. Curves drawn to actual data invariably fall below this line and the greater the inequality in the distribution of income, the greater the area between the diagonal line and the Lorenz curve.

Figure B-2.—ILLUSTRATIVE EXAMPLE SHOWING COMPUTATION OF GINI INDEX OF CONCENTRATION



Source: Herman P. Miller, *Trends in the Income of Families and Persons in the United States, 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, 1963.



The Gini Index of Concentration is defined as the proportion of the total area under the diagonal that is between the diagonal and the Lorenz curve.<sup>4</sup> This relationship can be expressed as follows, using the notation in figure B-2 above:

$$L = \frac{A}{A+B} = \frac{\text{area between curve and diagonal}}{\text{area under diagonal}}$$

Since the cumulative percents on each axis add to 100, the area in the entire square is 1 and the area under the diagonal is 1/2. Therefore, the expression above can be rewritten as follows:

$$L = \frac{1/2 - \text{Area under curve}}{1/2} = 1 - 2 (\text{area under curve})$$

If we assume that the curve between any two points is approximated by a straight line, the area for any segment of the curve can be expressed as follows:

$$(f_{i+1} - f_i) \frac{(y_i + y_{i+1})}{2}$$

When summed over all intervals, the area under the curve is

$$\sum_{i=1}^K (f_{i+1} - f_i) \frac{(y_i + y_{i+1})}{2}$$

Substituting in the expression for  $L$  above yields the formula that was used in computing the Gini Index:

$$L = 1 - 2 \sum_{i=1}^K (f_{i+1} - f_i) \frac{(y_i + y_{i+1})}{2}$$

$$L = 1 - \sum_{i=1}^K (f_{i+1} - f_i)(y_i + y_{i+1})$$

## NOTES

<sup>1</sup> These tables were prepared by Hyman Kaitz of the U.S. Bureau of Labor Statistics.

<sup>2</sup> Pareto's observations have been subjected to repeated study and although his inferences, which came to be known as "Pareto's Law," have been largely refuted, his statistical observations regarding the upper ranges of the income distribution appear to be generally sound even today, and his mathematical formulation is widely used as the basis for estimating the average for the open-end of an income distribution.

<sup>3</sup> Internal Revenue Service, *Statistics of Income 1959, 1960, and 1961, Income Tax Returns, State and Metropolitan Areas*.

<sup>4</sup> This presentation is based on James Morgan, "The Anatomy of Income Distribution," *The Review of Economics and Statistics*, August 1962, p. 281.





## APPENDIX C

# OCCUPATIONAL CLASSIFICATION AND STATISTICAL TABLES USED TO MEASURE WAGE TRENDS FOR DETAILED OCCUPATIONS

See chapter IV for a discussion of the source and limitations of the data. The list below shows the detailed occupations included in each of the intermediate occupation groups for which data are shown in the tables that follow. Detailed occupations are not shown where the intermediate occupation group consists of only one detailed occupation. The abbreviation "n.e.c." means "not elsewhere classified." The figure "1960" appearing in parentheses after a detailed occupation indicates that the occupation was added to the intermediate group in 1960, but was not included in that group in 1940 or 1950.

### OCCUPATIONAL CLASSIFICATION

#### *Professional, Technical, Kindred Workers*

1. Artists and art teachers
2. Authors, editors, and reporters
  - Authors
  - Editors and reporters
  - Public relations men and publicity writers (1960)
3. Chemists
4. Clergymen
5. College presidents, professors, instructors (n.e.c.)
6. Designers and draftsmen
  - Designers
  - Draftsmen
7. Engineers, civil
8. Engineers, electrical
9. Engineers, mechanical
  - Aeronautical engineers
  - Mechanical engineers
  - Technical engineers (n.e.c.)
  - Sales engineers (1960)

10. Musicians and music teachers
11. Pharmacists
12. Social, welfare, and recreation workers
  - Recreation and group workers
  - Social and welfare workers, except group
13. Sports instructors, athletes, entertainers
  - Athletes
  - Dancers and dancing teachers
  - Entertainers (n.e.c.)
  - Sports instructors and officials
14. Teachers
  - Farm and home management advisors
  - Teachers (n.e.c.)
  - Teachers, elementary schools (1960)
  - Teachers, secondary schools (1960)

*Salaried Managers and Officials*

15. Conductors, railroad
16. Postmasters, and miscellaneous government officials
  - Inspectors, public administration
    - Federal public administration and postal service
    - State public administration
    - Local public administration
  - Officials and administrators (n.e.c.), public administration
    - Federal public administration and postal service (n.e.c.)
    - State public administration (n.e.c.)
    - Local public administration (n.e.c.)
  - Postmasters
  - Managers and officials
17. Manufacturing
18. Transportation, communication, and other public utilities
  - Transportation
  - Telecommunications, and utilities and sanitary services
19. Wholesale trade
20. Eating and drinking places
21. Retail trade, except eating and drinking
  - Food and dairy products stores, and milk retailing
  - General merchandise and five and ten cent stores
  - Apparel and accessories stores
  - Furniture, home furnishings, and equipment stores
  - Motor vehicles and accessories retailing
  - Gasoline service stations
  - Hardware, farm implement, and building material retailing
  - Other retail trade
22. Finance, insurance, and real estate
  - Banking and other finance
  - Insurance and real estate
23. Business and repair services
  - Business services
  - Automobile repair services and garages
  - Miscellaneous repair services
24. Personal services

*Clerical, Sales, and Kindred Workers*

25. Baggage men, express messengers, railway mail clerks
  - Baggage men, transportation
  - Express messengers and railway mail clerks

26. Bookkeepers, accountants, cashiers, ticket agents
  - Accountants
  - Bookkeepers
  - Cashiers
  - Ticket, station, and express agents
27. Mail carriers
28. Messengers, except express
  - Messengers and office boys
  - Telegraph messengers
29. Shipping and receiving clerks
30. Stenographers, typists, and secretaries
31. Telegraph operators
32. Newsboys
33. Insurance agents and brokers
  - Insurance adjusters, examiners, and investigators (1960)
34. Real estate agents and brokers
35. Salesmen and sales clerks (n.e.c.)
  - Manufacturing
  - Wholesale trade
  - Retail trade
  - Other industries (including "not reported")

*Craftsmen, Foremen, and Kindred Workers*

36. Bakers
37. Blacksmiths, forgemen, and hammermen
  - Blacksmiths
  - Forgemen and hammermen
38. Boilermakers
39. Cabinetmakers and patternmakers
  - Cabinetmakers
  - Pattern and model makers, except paper
40. Carpenters
41. Compositors and typesetters
42. Electricians
  - Foremen (n.e.c.)
43. Construction
44. Manufacturing
  - Metal industries
  - Machinery, including electrical
  - Transportation equipment
  - Other durable goods
  - Textiles, textile products, and apparel
  - Other nondurable goods (including "not specified" manufacturing)
45. Transportation, communication, and other public utilities
  - Railroads and railway express service
  - Transportation, except railroad
  - Telecommunications, and utilities and sanitary services
46. Inspectors (n.e.c.)
  - Construction
  - Railroads and railway express service
  - Transportation except railroad, communication, and other public utilities
  - Other industries including ("not reported")



47. Linemen and servicemen, telegraphers, etc.
48. Locomotive engineers
49. Locomotive firemen
50. Machinists, millwrights, and toolmakers
  - Job setters, metal
  - Machinists
  - Millwrights
  - Toolmakers, and die makers and setters
51. Masons, tile setters, and stone cutters
  - Brickmasons, stonemasons, and tile setters
  - Stone cutters and stone carvers
52. Mechanics and repairmen, and loom fixers
  - Loom fixers
  - Mechanics and repairmen
    - Airplane
    - Automobile
    - Office machine
    - Radio and television
    - Railroad and car shop
    - Not elsewhere classified
53. Molders, metal
54. Painters (construction), paperhangers, glaziers
  - Glaziers
  - Painters, construction and maintenance
  - Paperhangers
55. Plasterers and cement finishers
  - Cement and concrete finishers
  - Plasterers
56. Plumbers and pipe fitters
57. Printing craftsmen, except compositors and typesetters
  - Electrotypers and stereotypers
  - Photoengravers and lithographers
  - Pressmen and plate printers, printing
58. Rollers and roll hands, metal
59. Roofers and sheet metal workers
  - Roofers and slaters
  - Tinsmiths, coppersmiths, and sheet metal workers
60. Shoemakers and repairers, except factory
61. Stationary engineers, cranemen, hoistmen
  - Cranemen, derrickmen, and hoistmen
  - Excavating, grading, and road machinery operators
  - Stationary engineers
62. Structural metal workers
63. Tailors and furriers
  - Furriers
  - Tailors

*Operatives and Kindred Workers*

64. Apprentices
  - Auto mechanics
  - Bricklayers and masons
  - Carpenters
  - Electricians
  - Machinists and toolmakers
  - Mechanics, except auto
  - Plumbers and pipe fitters
  - Building trades (n.e.c.)
  - Metal working trades (n.e.c.)
  - Printing trades
  - Other specified trades
  - Trade not specified
65. Attendants, auto service and parking
66. Brakemen and switchmen, railroad
  - Brakemen, railroad
  - Switchmen, railroad
67. Drivers—bus, taxi, and truck, and deliverymen
  - Bus drivers
  - Deliverymen and routemen
  - Taxicab drivers and chauffeurs
  - Truck and tractor drivers
68. Stationary firemen
69. Mine operatives and laborers (n.e.c.)
  - Coal mining
  - Crude petroleum and natural gas extraction
  - Mining and quarrying, except fuel
70. Motormen—railway, mine, factory, etc.
  - Motormen—mine, factory, logging camp, etc.
  - Motormen—street, subway, and elevated railway
71. Painters, except construction and maintenance
72. Sailors and deck hands
73. Welders and flame-cutters
  - Operatives and kindred workers (n.e.c.)
74. Food and kindred products
  - Meat products
  - Dairy products
  - Canning and preserving fruits, vegetables, and sea foods
  - Grain-mill products
  - Bakery products
  - Confectionery and related products
  - Beverage industries
  - Miscellaneous food preparations and kindred products
  - Not specified food industries
  - Packers and wrappers (n.e.c.) (1960)
75. Knitting mills
  - Knitters, loopers, and toppers, textile (1960)

- |   |   |
|---|---|
| <p>76. Textile mill products, except knitting mills<br/>           Spinners, textile<br/>           Weavers, textile<br/>           Dyeing and finishing textiles, except knit goods<br/>           Carpets, rugs, and other floor coverings<br/>           Yarn, thread, and fabric mills<br/>           Miscellaneous textile mill products<br/>           Graders and sorters, mfg. (1960)</p> <p>77. Apparel and other fabric textile products<br/>           Apparel and accessories<br/>           Miscellaneous fabricated textile products<br/>           Sewers and stitchers, mfg. (1960)</p> <p>78. Furniture, and lumber and wood products<br/>           Sawmills, planing mills, and mill work<br/>           Miscellaneous wood products<br/>           Furniture and fixtures</p> <p>79. Paper, paper products, and printing<br/>           Bookbinders<br/>           Pulp, paper, and paperboard mills<br/>           Paperboard containers and boxes<br/>           Miscellaneous paper and pulp products<br/>           Printing, publishing, and allied industries</p> <p>80. Chemicals and petroleum, and coal products<br/>           Synthetic fibers<br/>           Drugs and medicines<br/>           Paints, varnishes, and related products<br/>           Miscellaneous chemicals and allied products<br/>           Petroleum refining<br/>           Miscellaneous petroleum and coal products</p> <p>81. Rubber products</p> <p>82. Footwear industries, except rubber</p> <p>83. Leather and leather products, except footwear<br/>           Leather—tanned, curried, and finished<br/>           Leather products, except footwear</p> <p>84. Stone, clay, and glass products<br/>           Glass and glass products<br/>           Cement and concrete, gypsum, and plaster products<br/>           Structural clay products<br/>           Pottery and related products<br/>           Miscellaneous nonmetallic mineral and stone products</p> | <p>85.<sup>1</sup> Primary metal industries (1960)<br/>           Blast furnaces, steel works, and rolling and finishing mills<br/>           Other primary iron and steel industries<br/>           Primary nonferrous industries</p> <p>85a.<sup>1</sup> Fabricated metal industries (incl. not spec. metal) (1960)<br/>           Cutlery, handtools, and other hardware<br/>           Fabricated structural metal products<br/>           Miscellaneous fabricated metal products<br/>           Not specified metal industries</p> <p>86. Machinery<br/>           Agricultural machinery and tractors<br/>           Office and store machines and devices<br/>           Miscellaneous machinery<br/>           Electrical machinery, equipment, and supplies<br/>           Assemblers (1960)<br/>           Checkers, examiners, and inspectors, mfg. (1960)</p> <p>87. Motor vehicles and motor vehicle equipment</p> <p>88. Transportation equipment, except motor vehicle<br/>           Aircraft and parts<br/>           Ship and boat building and repairing<br/>           Railroad and miscellaneous transportation equipment</p> <p style="text-align: center;"><i>Service Workers</i></p> <p>89. Private household workers<br/>           Housekeepers, private household<br/>               Living in<br/>               Living out<br/>           Launderers, private household<br/>               Living in<br/>               Living out<br/>           Private household workers (n.e.c.)<br/>               Living in<br/>               Living out<br/>           Baby sitters (1960)</p> <p>90. Firemen, fire protection</p> <p>91. Guards and watchmen<br/>           Guards, watchmen, and doorkeepers<br/>           Watchmen (crossing) and bridge tenders</p> <p>92. Policemen, sheriffs, and marshals<br/>           Marshals and constables<br/>           Government<br/>           Private<br/>           Sheriffs and bailiffs</p> <p>93. Barbers, beauticians, and manicurists<br/>           Hairdressers and cosmetologists (1960)</p> |
|---|---|

See footnote on page 227.



94. Charmen, janitors, and porters Charmen and cleaners Janitors and sextons Porters	106. Chemicals and petroleum, and coal products Synthetic fibers Drugs and medicines Paints, varnishes, and related products Miscellaneous chemicals and allied products Petroleum refining Miscellaneous petroleum and coal products
95. Cooks, except private household	
96. Elevator operators	
97. Waiters, bartenders, and counter workers Bartenders Counter and fountain workers Waiters	107. Stone, clay, and glass products Glass and glass products Cement and concrete, gypsum, and plaster products Structural clay products Pottery and related products Miscellaneous nonmetallic mineral and stone products
98. Service workers, except private household (n.e.c.) Kitchen workers, exc. private household (n.e.c.) (1960)	108. <sup>1</sup> Primary metal industries (1960) Blast furnaces, steel works, and rolling and finishing mills Other primary iron and steel industries Primary nonferrous industries
<i>Laborers, Except Farm and Mine</i>	
99. Fishermen and oystermen	
100. Longshoremen and stevedores	
101. Lumbermen, raftsmen, and wood-choppers Laborers (n.e.c.): Manufacturing industries:	108a. <sup>1</sup> Fabricated metal industries (incl. not spec. metal) (1960) Cutlery, handtools, and other hardware Fabricated structural metal products Miscellaneous fabricated metal products Not specified metal industries
102. Food and kindred products Meat products Dairy products Canning and preserving fruits, vegetables, and sea foods Grain-mill products Bakery products Confectionery and related products Beverage industries Miscellaneous food preparations and kindred products Not specified food industries	109. Machinery Agricultural machinery and tractors Office and store machines and devices Miscellaneous machinery Electrical machinery, equipment, and supplies
103. Textiles, textile products, and apparel Knitting mills Dyeing and finishing textiles, except knit goods Carpets, rugs, and other floor coverings Yarn, thread, and fabric mills Miscellaneous textile mill products Apparel and accessories Miscellaneous fabricated textile products	110. Motor vehicles and motor vehicle equipment
104. Furniture, and lumber and wood products Sawmills, planing mills, and mill work Miscellaneous wood products Furniture and fixtures	111. Transportation equipment, except motor vehicle Aircraft and parts Ship and boat building and repairing Railroad and miscellaneous transportation equipment
105. Paper, paper products, and printing Pulp, paper, and paperboard mills Paperboard containers and boxes Miscellaneous paper and pulp products Printing, publishing, and allied industries	Nonmanufacturing industries: 112. Construction Carpenters' helpers (1960) 113. Railroads and railway express service 114. Transportation, except railroad Truck drivers' helpers (1960) 115. Telecommunications and utilities and sanitary services 116. Wholesale and retail trade Warehousemen (n.e.c.) (1960)

<sup>1</sup> Items designated 85 and 85a, and 108 and 108a, have been merged in the tables which follow for comparability with data for 1939 and 1949 which were not shown separately.

Table C-1.—WAGE OR SALARY INCOME IN 1959 OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE,  
BY SELECTED OCCUPATIONS: 1960

[Based on 5-percent sample]

Occupation	Total wage or salary income	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$6,999	\$7,000 to \$7,999	\$8,000 to \$8,999	\$10,000 to \$14,999	\$15,000 and over
<b>PROFESSIONAL, TECHNICAL, KINDRED WORKERS</b>												
Artists and art teachers.....	54,163	2,005	2,666	2,827	3,734	6,740	8,103	8,209	6,496	6,563	4,698	2,022
Authors, editors, and reporters.....	96,898	3,191	4,306	3,479	4,984	7,113	12,446	13,921	12,503	15,515	13,499	5,941
Chemists.....	73,331	1,092	1,774	1,979	2,937	4,842	10,583	12,413	11,189	13,766	10,743	2,013
Clergymen.....	161,074	12,830	23,302	18,119	27,992	34,102	20,985	11,109	5,417	4,335	2,359	524
College pres., professors, instr's (n.e.c.)..	132,922	4,423	8,138	8,584	6,437	7,803	13,139	15,478	17,829	24,358	21,032	5,701
Designers and draftsmen.....	249,536	6,772	10,868	11,559	20,240	32,330	46,305	44,481	31,727	30,334	12,950	1,970
Engineers, civil.....	150,000	1,764	3,505	4,115	6,772	10,172	15,419	22,258	22,338	35,664	24,035	3,958
Engineers, electrical.....	177,984	1,229	3,153	2,973	5,475	6,283	11,001	19,071	26,849	49,210	45,624	7,116
Engineers, mechanical.....	341,285	2,243	6,452	4,972	8,357	10,488	25,324	43,192	53,041	89,845	81,841	15,530
Musicians and music teachers.....	67,782	9,503	6,192	5,775	5,775	8,796	9,923	7,520	5,124	4,726	3,045	1,027
Pharmacists.....	54,462	1,633	2,945	2,366	3,220	4,337	7,214	8,767	9,548	9,005	4,465	962
Social, welfare, and recreation workers.....	55,811	5,685	4,236	3,334	5,268	9,811	10,554	7,182	4,214	3,058	1,987	482
Sports instructors, athletes, entertainers....	61,964	5,971	4,904	4,881	6,380	7,880	9,854	8,550	5,041	4,942	2,397	1,164
Teachers (n.e.c.).....	506,314	14,172	24,593	29,121	50,170	91,381	102,531	80,617	50,454	44,520	16,596	2,159
<b>SALARIED MANAGERS AND OFFICIALS</b>												
Conductors, railroad.....	44,538	343	365	645	1,050	3,267	7,566	7,749	8,633	12,537	2,343	40
Postmasters, and misc. government officials....	250,233	6,035	6,831	8,448	17,936	32,651	46,723	47,082	30,382	27,703	22,311	4,131
Managers and officials:												
Manufacturing.....	726,842	5,098	15,733	15,005	22,468	39,979	67,727	78,245	79,933	119,698	152,132	130,824
Trans., commun., & other public utilities....	201,171	1,285	2,923	3,372	7,182	12,891	25,250	30,788	32,114	39,522	30,310	15,534
Wholesale trade.....	180,326	2,104	3,703	4,053	9,299	19,238	24,497	23,089	18,671	23,060	27,274	25,338
Eating and drinking places.....	45,776	2,039	3,001	4,529	6,458	7,803	7,820	4,433	2,984	3,238	2,269	1,202
Retail trade, exc. eating and drinking.....	417,273	6,224	11,937	20,042	43,339	66,299	77,747	57,614	39,932	40,017	34,026	20,096
Finance, insurance, and real estate.....	283,740	2,616	6,511	5,953	13,196	22,521	35,859	36,586	31,546	43,406	49,406	35,998
Business and repair services.....	71,995	1,156	1,881	2,424	4,831	7,462	10,014	8,090	7,018	7,863	10,539	10,717
Personal services.....	46,363	2,761	3,383	3,543	5,283	6,211	7,316	4,614	3,666	3,421	3,603	2,562
<b>CLERICAL, SALES, AND KINDRED WORKERS</b>												
Baggage men, express mess., rwy. mail clerks....	11,754	220	245	483	1,173	2,648	3,738	2,187	519	441	100	-
Bookb'prs, acct's., cashiers, ticket agents....	649,187	39,021	38,786	37,910	61,368	94,342	119,785	95,209	62,199	56,449	36,343	7,775
Mail carriers.....	194,884	6,280	5,764	5,709	10,304	43,849	97,184	19,098	4,454	1,877	324	41
Messengers, except express.....	51,776	19,638	9,176	9,060	6,761	3,632	2,239	667	280	241	82	-
Shipping and receiving clerks.....	261,644	13,149	16,516	32,550	56,089	66,434	49,705	17,876	6,179	2,604	522	20
Stenographers, typists, and secretaries.....	76,113	6,289	6,184	6,290	11,301	13,293	11,137	6,280	4,507	4,574	4,153	2,105

— Represents zero.



Table C-1.—WAGE OR SALARY INCOME IN 1959 OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE,  
BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Total with wage or salary income	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$6,999	\$7,000 to \$7,999	\$8,000 to \$9,999	\$10,000 to \$14,999	\$15,000 and over
CLERICAL, SALES, & KINDRED WORKERS--Con.												
Telegraph operators.....	15,900	287	265	509	749	3,413	8,005	1,710	641	180	141	-
Newsboys.....	155,109	144,215	3,344	1,700	1,332	1,299	1,234	780	422	504	199	80
Insurance agents and brokers.....	321,984	8,489	13,266	16,070	26,786	45,911	61,835	49,491	33,630	31,559	24,674	10,273
Real estate agents and brokers.....	87,108	6,970	7,659	7,536	9,052	9,275	10,983	7,588	6,187	7,821	8,710	5,327
Salesmen and sales clerks (n.e.c.).....	1,934,441	186,956	149,337	152,476	229,048	269,500	275,204	205,210	140,996	142,655	127,378	55,681
CRAFTSMEN, FOREMEN, AND KINDRED WORKERS												
Bakers.....	81,012	4,620	5,406	7,553	13,795	18,735	19,724	7,291	2,374	1,088	304	122
Blacksmiths, forgemn, and hammermen.....	27,055	1,416	1,558	2,081	3,365	5,124	6,908	3,452	1,605	1,206	281	59
Boilermakers.....	25,761	525	1,028	1,354	2,600	4,641	6,518	4,892	2,633	1,366	204	-
Cabinetmakers and patternmakers.....	92,357	3,663	4,208	6,742	11,352	15,278	17,551	15,584	8,411	7,318	2,109	141
Carpenters.....	734,392	60,873	72,625	90,824	112,721	123,589	119,079	85,530	42,597	20,989	4,497	1,068
Compositors and typesetters.....	155,374	5,124	5,783	7,906	15,155	20,322	30,546	34,651	20,631	12,278	2,634	344
Electricians.....	328,640	6,282	8,865	13,383	23,590	41,924	71,775	65,662	49,108	39,263	8,268	520
Foremen (n.e.c.):												
Construction.....	96,764	1,500	2,175	4,076	9,971	14,121	17,274	16,028	13,902	12,564	4,773	380
Manufacturing.....	678,678	3,827	7,268	11,018	30,346	66,271	109,234	122,032	114,088	140,228	67,633	6,733
Trans., commun., & other public utilities.....	118,504	746	835	1,531	4,879	14,443	24,394	24,487	21,810	20,886	4,172	321
Inspectors (n.e.c.).....	95,525	1,619	2,270	3,790	9,550	17,624	33,782	15,441	6,434	3,907	906	202
Linemen and servicemen, telegraph, etc.....	268,927	2,882	4,911	7,528	19,229	40,869	61,774	74,889	40,027	15,107	1,550	161
Locomotive engineers.....	57,416	321	461	511	1,196	3,772	7,404	8,976	11,051	19,014	4,509	201
Locomotive firemen.....	39,038	625	1,010	1,791	3,269	4,914	8,360	7,783	6,232	4,635	379	40
Machinists, millwrights, and toolmakers.....	782,744	11,147	16,878	28,514	63,747	126,588	206,179	165,854	91,694	59,907	11,548	688
Masons, tile setters and stone cutters.....	173,955	10,522	12,415	17,221	23,637	27,883	31,610	26,338	14,709	7,564	1,775	281
Mechanics and repairmen, and loom fixers.....	2,062,580	98,750	116,212	187,334	320,005	416,534	439,013	270,953	123,346	71,070	17,015	2,348
Molders, metal.....	50,290	1,318	2,083	3,967	8,077	13,316	11,938	6,222	1,962	1,065	282	60
Painters (const.) paperhangers, glaziers.....	303,203	34,653	32,753	38,984	48,244	51,871	48,483	28,988	12,411	4,988	1,227	601
Plasterers and cement finishers.....	83,322	5,520	6,629	9,192	11,756	12,608	13,078	11,503	8,392	3,862	582	200
Plumbers and pipe fitters.....	284,644	8,573	11,696	18,190	28,873	40,262	53,049	48,277	37,356	33,212	4,713	443
Printing craft., exc. compos. & typesetters.....	104,332	1,899	2,754	3,604	8,019	12,960	18,008	18,710	15,705	15,962	6,531	180
Rollers and roll hands, metal.....	30,092	650	1,033	1,602	3,932	6,317	6,068	4,272	2,876	2,255	967	120
Roofers and sheet metal workers.....	181,473	7,112	10,226	14,965	22,276	30,758	39,414	29,537	17,021	8,838	1,145	181
Shoemakers and repairers, exc. factory.....	14,046	2,688	2,620	2,549	3,026	1,733	825	241	99	224	21	20
Stationary engineers, cranimen, hoistmen.....	601,992	12,437	20,994	37,874	68,501	103,005	118,641	93,830	59,045	54,754	27,037	5,874
Structural metal workers.....	64,248	1,675	2,164	3,991	5,685	10,224	15,199	10,827	7,390	5,975	1,058	60
Tailors and furriers.....	25,123	1,558	2,205	2,585	5,145	6,456	4,110	1,413	827	464	281	79

-- Represents zero.

Table C-1.—WAGE OR SALARY INCOME IN 1959 OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE,  
BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation:	Total with wage or salary income	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$6,999	\$7,000 to \$7,999	\$8,000 to \$9,999	\$10,000 to \$14,999	\$15,000 and over
OPERATIVES AND KINDRED WORKERS												
Apprentices.....	80,814	9,985	10,379	11,207	16,959	17,269	9,831	3,647	959	419	159	-
Attendants, auto service and parking.....	328,883	94,051	61,339	62,015	54,687	31,993	16,192	4,695	2,019	1,225	445	222
Brakemen and switchmen, railroad.....	124,421	2,007	3,437	5,447	9,035	18,718	37,151	23,672	13,608	10,240	1,024	82
Drivers, bus, taxi, & truck, & deliverymen.....	2,212,950	201,909	211,898	290,944	355,153	369,802	355,915	215,475	113,123	74,144	18,277	6,310
Stationary firemen.....	90,538	3,231	5,078	8,407	14,052	19,385	19,354	12,920	5,399	2,389	283	40
Mine operatives and laborers (n.e.c.).....	308,305	26,333	28,409	37,118	49,846	57,809	54,242	31,670	13,379	7,371	1,566	562
Motormen, railway, mine, factory, etc.....	20,624	707	907	1,423	2,957	4,512	6,700	2,474	743	180	-	21
Painters, exc. construction and maintenance..	128,995	7,977	9,707	16,958	23,908	27,637	23,718	11,984	4,800	1,863	282	161
Sailors and deck hands.....	38,429	2,459	3,092	5,671	6,353	6,650	5,736	3,789	2,398	1,600	621	60
Welders and flame-cutters.....	354,366	9,428	15,640	25,163	47,600	75,927	86,749	53,340	24,643	13,191	2,526	159
Operatives and kindred workers (n.e.c.):												
Food and kindred products.....	492,869	60,739	46,369	64,673	79,150	99,078	82,246	37,917	14,412	6,956	1,188	141
Knitting mills.....	28,234	1,798	2,519	5,692	6,975	6,710	2,592	1,006	502	299	101	40
Textile mill products, exc. knitting mills..	233,293	12,240	18,628	58,802	82,431	40,180	13,266	4,639	1,484	1,201	302	120
Apparel and other fabric textile products..	146,274	9,574	14,509	28,498	29,689	26,589	18,906	8,916	5,328	2,997	986	282
Furniture, and lumber and wood products....	207,574	20,569	29,731	46,878	40,828	35,952	20,729	8,029	2,721	1,854	263	20
Paper, paper products, and printing.....	243,909	11,591	10,600	17,760	35,949	54,522	58,673	32,017	14,081	6,967	1,609	140
Chemicals and petroleum, and coal products..	211,662	5,459	6,079	10,371	19,717	36,453	50,219	48,607	25,864	7,629	982	282
Rubber products.....	114,935	4,417	4,835	8,647	16,622	23,182	27,831	17,357	8,568	2,990	386	100
Footwear industries, exc. rubber.....	69,376	5,456	6,942	15,208	19,715	13,497	5,901	1,929	488	160	60	20
Leather & leather products, exc. footwear..	30,323	1,923	2,489	4,896	8,072	7,298	4,226	841	198	240	80	60
Stone, clay, and glass products.....	141,171	5,835	8,450	15,582	22,898	32,079	28,913	15,223	7,789	3,622	639	141
Metal industries.....	457,153	15,506	22,583	38,902	76,136	115,636	104,267	49,626	21,728	9,837	2,631	301
Machinery.....	1,047,147	41,919	54,430	84,012	146,959	248,172	257,821	131,353	50,655	25,874	5,209	743
Motor vehicles & motor vehicle equipment....	153,681	5,475	6,927	9,525	16,353	37,765	46,302	19,535	6,622	4,016	1,100	61
Trans. equipment, exc. motor vehicle.....	100,841	4,047	5,011	7,539	12,143	23,032	26,828	13,511	5,394	2,875	382	79
SERVICE WORKERS												
Private household workers.....	55,918	27,474	11,394	8,618	5,206	1,893	688	324	80	61	140	40
Firemen, fire protection.....	137,304	1,042	1,447	3,219	12,475	32,242	41,041	26,438	11,580	6,589	1,231	-
Guards and watchmen.....	253,878	21,554	24,083	36,980	47,401	51,762	40,330	20,577	7,103	3,324	644	120
Policemen, sheriffs, and marshals.....	272,946	5,002	6,195	10,490	33,248	65,183	80,299	46,664	14,767	7,698	3,178	222
Barbers, beauticians, and manicurists.....	108,174	12,217	12,745	17,119	22,525	19,326	12,829	5,798	2,497	1,812	965	341
Charmen, janitors, and porters.....	717,166	131,957	114,915	151,843	155,808	107,211	37,824	10,412	3,915	2,469	568	244
Cooks, exc. private household.....	190,823	22,810	25,755	33,056	38,742	31,404	21,241	9,947	4,065	2,750	830	223
Elevator operators.....	51,342	4,363	6,003	9,411	15,509	11,687	2,982	800	385	121	40	41
Waiters, bartenders, and counter workers.....	267,506	58,887	42,669	45,356	52,800	35,957	19,457	7,081	2,736	1,394	767	402
Service wkrs., exc. priv. household (n.e.c.).	223,053	86,044	51,569	43,707	26,871	8,935	3,965	977	329	373	202	81

—Represents zero.



Table C-1.—WAGE OR SALARY INCOME IN 1959 OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE,  
BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Total with wage or salary income	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$6,999	\$7,000 to \$7,999	\$8,000 to \$8,999	\$10,000 to \$14,999	\$15,000 and over
LABORERS, EXCEPT FARM AND MINE												
Fishermen and oystermen.....	19,529	4,277	3,528	3,425	2,651	2,161	1,256	932	418	521	301	59
Longshoremens and stevedores.....	56,890	3,578	4,052	6,190	8,150	9,197	9,945	7,759	4,670	2,580	749	20
Lumbermen, raftsmen, and woodchoppers.....	101,631	32,448	26,861	15,814	8,307	7,204	4,353	2,503	1,461	1,441	1,099	140
LABORERS (n.e.c.):												
Manufacturing industries:												
Food and kindred products.....	120,365	18,181	16,378	19,346	19,787	21,007	16,066	6,533	1,949	916	142	60
Textiles, textile products, and apparel..	39,214	5,161	5,924	14,084	9,543	3,155	945	240	61	80	-	21
Furniture, and lumber and wood products..	118,630	21,791	26,045	28,962	16,350	14,251	7,006	2,314	903	827	121	60
Paper, paper products, and printing.....	46,213	4,607	4,026	5,537	8,978	11,572	7,586	2,669	807	331	100	-
Chemicals & petroleum, & coal products...	60,579	4,139	4,790	6,938	10,441	13,660	13,195	5,250	1,521	584	41	20
Stone, clay, and glass products.....	77,687	5,836	8,289	13,607	16,036	17,663	10,365	3,740	1,384	666	21	80
Metal industries.....	232,550	13,286	17,192	30,990	55,096	60,785	35,767	12,069	4,140	2,540	522	163
Machinery.....	68,765	5,649	6,058	9,487	14,406	17,906	10,466	3,191	1,059	481	21	41
Motor vehicles & motor vehicle equipment.	33,403	2,156	3,096	2,775	4,694	9,178	7,422	2,879	743	440	-	20
Trans. equipment, exc. motor vehicles....	25,219	2,289	2,794	3,618	4,490	6,936	3,648	983	342	99	20	-
Nonmanufacturing industries:												
Construction.....	727,114	127,920	118,504	137,731	137,908	98,543	59,315	27,459	10,516	6,585	1,927	706
Railroads and railway express service....	127,301	8,050	9,673	16,383	28,395	47,501	13,287	2,499	848	424	121	120
Transportation, exc. railroad.....	116,057	20,269	14,324	17,119	17,648	18,455	17,484	6,788	2,498	1,049	262	161
Telecommun. & utilities & sanitary serv..	116,629	11,439	13,450	22,140	25,643	22,496	14,560	4,571	1,523	604	144	59
Wholesale and retail trade.....	428,514	142,036	65,808	54,792	53,058	55,892	38,625	12,389	3,793	1,538	439	144

—Represents zero.

Source: Unpublished data from the 1960 Census of Population.

Table C-2.—WAGE OR SALARY INCOME IN 1959 OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960

[Based on 5-percent sample]

Occupation	Total with wage or salary income	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$6,999	\$7,000 to \$7,999	\$8,000 to \$8,999	\$10,000 to \$14,999	\$15,000 and over
<b>PROFESSIONAL, TECHNICAL, KINDRED WORKERS</b>												
Artists and art teachers.....	39,041	384	664	1,317	2,157	4,368	6,434	6,515	5,508	5,939	4,057	1,698
Authors, editors, and reporters.....	80,234	768	1,834	1,434	2,954	5,333	11,135	12,878	11,618	14,327	12,395	5,358
Chemists.....	64,144	142	624	850	1,549	3,551	9,173	11,529	10,868	13,465	10,440	1,953
Clergymen.....	142,019	8,092	19,109	14,829	25,925	32,045	19,751	10,606	5,090	3,871	2,217	484
College pres., professors, instr's (n.e.c.)..	77,221	505	1,839	3,065	2,747	4,178	7,667	9,465	11,162	16,570	15,208	4,815
Designers and draftsmen.....	203,859	607	2,851	4,097	13,216	27,062	41,896	41,457	30,077	28,660	12,146	1,790
Engineers, civil.....	130,556	221	1,231	1,759	3,919	7,805	13,014	20,461	21,005	33,931	23,332	3,878
Engineers, electrical.....	160,245	182	1,633	848	1,680	4,218	9,135	17,716	25,809	47,713	44,417	6,894
Engineers, mechanical.....	307,570	480	3,336	1,550	3,277	7,365	21,346	39,595	50,188	86,339	79,207	14,887
Musicians and music teachers.....	28,952	1,537	1,747	2,261	2,548	4,026	5,223	3,739	2,934	2,457	1,875	605
Pharmacists.....	45,539	645	1,356	1,373	2,069	3,328	6,205	8,097	8,919	8,423	4,262	862
Social, welfare, and recreation workers.....	41,042	448	1,359	1,352	3,629	8,718	9,742	6,736	3,874	2,876	1,887	421
Sports instructors, athletes, entertainers...	31,566	627	1,396	1,982	2,915	4,537	6,215	5,671	3,073	2,993	1,454	703
Teachers (n.e.c.).....	249,864	1,843	4,265	8,132	21,314	43,357	53,811	45,437	29,478	28,121	12,229	1,877
<b>SALARIED MANAGERS AND OFFICIALS</b>												
Conductors, railroad.....	33,198	100	163	142	382	1,594	5,133	6,120	7,199	10,268	2,057	40
Postmasters, and misc. government officials..	227,609	2,274	3,663	5,619	15,169	30,109	43,941	45,264	29,217	26,837	21,688	3,828
Managers and officials:												
Manufacturing.....	660,972	1,633	10,060	8,803	15,568	32,661	60,837	71,838	74,459	113,525	146,658	124,930
Trans., commun., & other public utilities..	187,637	510	2,014	2,141	5,702	11,383	23,877	29,183	30,439	38,208	29,257	14,923
Wholesale trade.....	166,032	545	2,020	2,658	7,418	17,352	23,242	22,384	18,029	22,096	26,096	24,192
Eating and drinking places.....	35,041	488	1,294	2,533	4,601	6,189	6,874	4,009	2,844	3,000	2,108	1,121
Retail trade, exc. eating and drinking.....	373,516	1,898	5,691	12,938	35,616	60,280	73,174	55,090	38,458	38,304	32,695	19,372
Finance, insurance, and real estate.....	263,033	1,032	4,264	3,707	10,650	20,463	34,128	35,395	30,305	42,112	46,991	33,986
Business and repair services.....	63,569	425	868	1,311	3,655	6,307	8,987	7,649	6,614	7,521	9,997	10,235
Personal services.....	38,076	877	1,821	2,159	4,176	5,494	6,672	4,355	3,462	3,280	3,319	2,461
<b>CLERICAL, SALES, AND KINDRED WORKERS</b>												
Baggage men, express mess., rwy. mail clerks..	9,756	40	40	260	826	2,325	3,300	2,025	458	382	100	-
Book'prs, accts., cashiers, ticket agents....	531,384	6,533	15,336	20,202	46,312	32,676	112,097	91,018	60,248	54,359	35,154	7,449
Mail carriers.....	167,875	1,446	1,992	2,395	6,349	9,216	92,068	17,952	4,335	1,757	324	41
Messengers, except express.....	23,553	2,606	2,851	6,195	5,809	1,976	1,976	606	201	260	82	-
Shipping and receiving clerks.....	191,471	956	3,573	18,799	43,433	55,756	44,229	16,265	5,574	2,464	402	20
Stenographers, typists, and secretaries.....	58,901	1,157	2,501	3,656	9,035	11,936	10,470	6,037	4,063	4,273	3,829	1,944

—Represents zero.



Table C-2.—WAGE OR SALARY INCOME IN 1959 OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Total with wage or salary income	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$6,999	\$7,000 to \$7,999	\$8,000 to \$8,999	\$10,000 to \$14,999	\$15,000 and over
CLERICAL, SALES, & KINDRED WORKERS—Con.												
Telegraph operators.....	13,133	61	81	124	445	2,366	7,543	1,590	602	180	141	—
Newsboys.....	83,587	75,710	1,941	1,193	1,009	1,036	933	641	422	443	179	80
Insurance agents and brokers.....	267,870	2,559	5,670	7,977	17,838	38,565	56,672	46,393	31,713	29,378	22,342	8,763
Real estate agents and brokers.....	61,561	2,506	3,844	4,073	5,687	6,992	8,508	6,211	5,119	6,537	7,521	4,563
Salesmen and sales clerks (n.e.c.).....	1,456,004	32,638	61,553	92,192	173,238	228,438	248,113	189,196	132,302	132,393	116,460	49,481
CRAFTSMEN, FOREMEN, AND KINDRED WORKERS												
Bakers.....	59,665	803	1,743	4,312	10,026	15,598	17,078	6,583	2,168	988	263	103
Blacksmiths, forgers, and hammermen.....	15,869	244	387	607	1,519	3,014	4,716	2,853	1,265	964	241	59
Boilermakers.....	13,607	60	103	345	792	2,079	3,979	3,366	1,813	906	164	—
Cabinetmakers and patternmakers.....	65,002	667	1,376	3,131	7,256	10,642	13,890	13,355	6,742	5,893	1,929	121
Carpenters.....	298,332	6,238	11,389	23,356	40,249	56,818	62,188	48,701	28,902	16,249	3,433	809
Compositors and typesetters.....	126,516	711	1,855	4,548	11,777	17,096	26,717	31,395	18,705	11,055	2,313	344
Electricians.....	229,841	1,027	2,523	4,655	12,714	25,861	54,256	50,571	38,456	32,377	7,041	360
Foremen (n.e.c.):												
Construction.....	68,529	284	584	1,571	6,392	9,723	12,542	11,691	10,824	10,233	4,325	360
Manufacturing.....	616,311	1,034	3,118	5,918	23,029	57,223	98,958	114,476	107,343	133,906	65,016	6,290
Trans., commun., & other public utilities.....	108,330	300	427	745	3,683	12,427	22,451	23,121	20,822	20,143	3,910	301
Inspectors (n.e.c.).....	75,233	223	547	1,610	5,834	12,728	29,703	13,972	5,946	3,664	845	161
Linemen and servicemen, telegraphers, etc.....	244,302	541	1,351	4,109	15,543	37,310	58,819	71,877	38,760	14,423	1,408	161
Locomotive engineers.....	41,850	81	160	185	383	1,617	4,577	6,441	8,554	15,564	4,107	181
Locomotive firemen.....	23,739	120	20	223	651	1,852	5,727	5,729	5,127	3,951	319	20
Machinists, millwrights, and toolmakers.....	585,139	1,192	3,146	9,965	34,236	85,179	165,346	142,051	80,662	52,530	10,244	588
Masons, tile setters, and stone cutters.....	54,077	836	2,014	3,371	6,259	7,730	10,913	9,668	6,964	4,934	1,208	180
Mechanics and repairmen, and loom fixers.....	1,556,662	16,700	39,668	105,309	235,681	338,256	382,652	244,513	112,070	64,396	15,389	2,028
Molders, metal.....	31,805	82	263	1,143	4,301	8,773	9,058	5,219	1,740	904	262	60
Painters (const.), paperhangers, glaziers.....	128,598	2,648	5,001	10,216	19,870	25,932	30,672	19,799	9,341	4,016	722	381
Plasterers and cement finishers.....	25,180	425	607	1,954	2,775	3,479	4,544	4,402	2,214	2,214	359	120
Plumbers and pipe fitters.....	175,120	1,132	2,807	7,040	14,130	23,933	35,892	32,717	27,041	26,318	3,870	240
Printing craft., exc. compos. & typesetters.....	85,984	345	1,036	1,890	5,686	10,535	15,622	16,718	13,958	14,105	5,909	180
Rollers and roll hands, metal.....	11,511	79	102	367	906	1,874	2,618	1,868	1,545	1,386	646	120
Roofers and sheet metal workers.....	107,352	671	1,867	4,231	10,093	18,862	29,063	20,957	12,926	7,516	1,005	161
Shoemakers and repairers, exc. factory.....	9,326	772	1,487	1,837	2,637	1,408	722	200	59	204	—	—
Stationary engineers, cranemen, hoistmen.....	406,307	2,158	6,416	15,697	37,685	63,758	85,487	71,571	46,510	46,565	25,008	5,452
Structural metal workers.....	29,373	80	140	812	1,251	4,061	8,099	5,858	4,108	4,048	876	40
Tailors and furriers.....	15,923	243	666	1,215	3,182	4,747	3,246	1,192	687	404	281	60

—Represents zero.

Table C-2.—WAGE OR SALARY INCOME IN 1959 OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Total with wage or salary income	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$6,999	\$7,000 to \$7,999	\$8,000 to \$9,999	\$10,000 to \$14,999	\$15,000 and over
<b>OPERATIVES AND KINDRED WORKERS</b>												
Apprentices.....	42,313	936	2,073	4,305	10,297	12,729	7,695	3,001	799	360	118	-
Attendants, auto service and parking.....	161,923	12,281	21,960	38,434	41,557	26,037	14,199	4,170	1,757	1,024	343	161
Brakemen and switchmen, railroad.....	81,947	283	508	1,111	2,544	8,722	28,715	18,713	11,553	8,874	842	82
Drivers, bus, taxi, & truck, & deliverymen.....	1,435,537	32,118	70,691	163,234	239,852	280,211	292,174	182,141	95,533	61,622	13,749	4,212
Stationary firemen.....	67,891	591	1,616	5,255	9,362	15,675	16,576	11,452	4,893	2,189	262	20
Mine operatives and laborers (n.e.c.).....	137,811	1,718	4,212	9,273	16,450	26,522	37,116	24,358	10,411	6,150	1,201	400
Motormen, railway, mine, factory, etc.....	11,362	160	160	202	977	2,175	5,091	1,853	583	140	-	21
Painters, exc. construction and maintenance..	80,923	833	1,885	8,262	15,136	19,553	18,748	10,246	4,217	1,702	261	80
Sailors and deck hands.....	13,762	142	431	1,124	1,964	2,384	2,827	2,067	1,267	997	519	40
Welders and flame-cutters.....	214,326	998	2,602	7,651	21,251	43,662	63,416	42,571	19,829	10,340	1,867	139
<b>Operatives and kindred workers (n.e.c.):</b>												
Food and kindred products.....	312,662	6,928	11,929	34,638	54,707	79,262	70,603	34,010	12,924	6,432	1,108	121
Knitting mills.....	16,510	82	482	2,958	4,696	4,846	1,901	803	402	219	101	20
Textile mill products, exc. knitting mills.....	164,255	1,048	4,125	38,665	66,777	34,942	11,837	4,056	1,284	1,140	281	100
Apparel and other fabric textile products.....	74,840	697	2,904	14,088	16,164	15,907	12,325	5,957	3,518	2,292	746	242
Furniture, and lumber and wood products.....	120,316	1,662	7,337	26,987	27,914	27,657	17,645	6,887	2,417	1,489	201	20
Paper, paper products, and printing.....	183,130	1,889	2,557	7,753	24,575	44,096	52,606	29,010	12,832	6,245	1,468	99
Chemicals and petroleum, and coal products..	173,451	484	1,395	4,748	12,744	29,514	45,478	45,528	25,006	7,310	982	262
Rubber products.....	74,346	365	592	3,499	10,415	16,454	20,383	12,874	7,098	2,261	365	40
Footwear industries, exc. rubber.....	40,943	243	1,249	8,535	13,417	10,223	4,899	1,750	447	120	40	20
Leather & leather products, exc. footwear.....	18,230	161	503	2,345	4,997	5,386	3,699	680	159	200	80	20
Stone, clay, and glass products.....	90,839	505	1,703	6,647	12,670	23,235	23,588	12,657	6,249	2,923	521	141
Metal industries.....	256,529	1,314	3,139	10,929	35,889	65,773	74,455	37,358	17,087	7,978	2,326	281
Machinery.....	672,027	2,571	8,465	27,088	77,021	162,903	205,992	113,968	45,212	23,417	4,829	561
Motor vehicles & motor vehicle equipment....	66,316	181	674	4,436	4,150	12,865	23,626	13,794	5,438	3,151	981	20
Trans. equipment, exc. motor vehicle.....	67,941	267	567	1,706	5,179	16,347	23,463	12,306	4,992	2,694	341	79
<b>SERVICE WORKERS</b>												
Private household workers.....	26,870	6,499	6,602	6,555	4,394	1,667	608	304	20	41	140	40
Firemen, fire protection.....	128,700	261	570	2,006	11,043	30,642	39,588	25,714	11,218	6,447	1,211	-
Guards and watchmen.....	184,880	2,797	7,754	24,423	38,072	45,305	36,643	19,544	6,581	3,099	562	100
Policemen, sheriffs, and marshals.....	245,616	1,417	2,707	6,843	28,862	60,349	76,016	44,467	14,240	7,396	3,097	222
Barbers, beauticians, and manicurists.....	70,665	2,937	4,588	10,160	16,674	15,748	10,840	4,970	2,094	1,528	805	321
Charmen, janitors, and porters.....	462,756	30,870	58,041	107,955	125,844	91,152	33,157	9,229	3,691	2,228	426	163
Cooks, exc. private household.....	116,073	3,368	9,913	19,297	27,964	23,810	16,966	8,263	3,378	2,307	666	141
Elevator operators.....	37,147	630	2,831	6,283	13,262	10,216	2,760	679	345	80	20	41
Waiters, bartenders, and counter workers....	137,753	8,039	15,395	24,785	36,612	26,782	16,002	5,769	2,271	1,129	647	322
Service wkrs., exc. priv. household (n.e.c.)..	93,199	10,897	21,228	28,847	20,803	6,765	3,169	752	206	270	181	81

—Represents zero.



Table C-2.—WAGE OR SALARY INCOME IN 1959 OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Total with wage or salary income	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$6,999	\$7,000 to \$7,999	\$8,000 to \$9,999	\$10,000 to \$14,999	\$15,000 and over
LABORERS, EXCEPT FARM AND MINE												
Fishermen and oystermen.....	5,939	692	837	1,020	1,074	750	485	466	156	300	119	40
Longshoremen and stevedores.....	24,205	287	614	1,404	2,464	4,134	5,147	4,647	3,213	1,772	523	-
Lumbermen, raftsmen, and woodchoppers.....	27,759	4,095	6,595	6,989	3,064	2,694	1,953	888	558	482	381	60
LABORERS (n.e.c.):												
Manufacturing industries:												
Food and kindred products.....	66,803	1,756	3,825	10,134	12,999	16,398	13,219	5,744	1,708	878	142	-
Textiles, textile products, and apparel...	24,015	465	1,546	10,372	7,734	2,694	864	220	40	80	-	-
Furniture, and lumber and wood products...	53,769	2,311	6,306	16,313	9,638	10,353	5,550	1,789	743	686	60	20
Paper, paper products, and printing.....	30,074	676	774	2,659	6,075	9,745	6,701	2,309	747	288	100	-
Chemicals & petroleum, & coal products...	40,370	345	1,180	3,240	6,225	10,899	11,835	4,744	1,338	523	21	20
Stone, clay, and glass products.....	40,344	616	1,741	5,826	7,918	11,861	7,739	2,915	1,124	503	21	80
Metal industries.....	84,250	788	1,763	6,767	16,790	25,061	20,530	7,873	2,657	1,578	361	82
Machinery.....	37,871	470	929	3,376	8,119	12,725	8,279	2,611	879	441	21	21
Motor vehicles & motor vehicle equipment.	13,158	82	308	382	1,535	3,519	4,323	2,069	581	359	-	-
Trans. equipment, exc. motor vehicles....	12,729	160	441	1,079	2,006	4,806	2,995	840	302	80	20	-
Nonmanufacturing industries:												
Construction.....	245,483	8,700	18,676	46,853	62,735	48,652	31,758	15,409	6,346	4,710	1,262	382
Railroads and railway express service....	78,863	922	1,643	5,140	16,134	39,986	11,572	2,195	748	362	121	40
Transportation, exc. railroad.....	60,267	2,077	3,862	7,579	10,673	13,213	13,922	5,557	2,216	926	181	61
Telecommun. & utilities & sanitary serv...	82,799	1,734	5,651	15,461	20,890	19,509	13,197	4,189	1,402	584	123	59
Wholesale and retail trade.....	206,213	18,467	23,382	30,822	37,008	46,025	34,314	11,077	3,364	1,314	359	81

—Represents zero.

Source: Unpublished data from the 1960 Census of Population.





Table C-3.—WAGE OR SALARY INCOME IN 1959 AT QUARTILE POSITIONS, ARITHMETIC MEAN, AND GINI RATIO, OF ALL MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE AND OF THOSE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

DATA ON WAGE TRENDS BY OCCUPATION													237
Occupation	All workers					Gini ratio	Full-year workers						
	Quartiles			Arith- metic mean	Inter- quartile range $\frac{Q_3 - Q_1}{\bar{x}}$		Quartiles			Arith- metic mean	Inter- quartile range $\frac{Q_3 - Q_1}{\bar{x}}$		
	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>				Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>				
CLERICAL, SALES, & KINDRED WORKERS--Con.													
Telegraph operators.....	\$4,633	\$5,340	\$5,837	\$5,221	.231	.133	\$5,027	\$5,462	\$5,898	\$5,506	.158	.100	
Newsboys.....	269	538	807	745	.722	.316	276	552	828	863	.640	.400	
Insurance agents and brokers.....	4,346	5,816	7,584	6,472	.500	.292	4,853	6,100	7,795	6,860	.429	.256	
Real estate agents and brokers.....	2,948	5,279	8,018	6,604	.768	.427	3,873	5,902	8,852	7,468	.667	.390	
Salesmen and sales clerks (n.e.c.).....	2,966	4,925	6,918	5,517	.716	.372	4,019	5,564	7,504	6,347	.549	.310	
CRAFTSMEN, FOREMEN, AND KINDRED WORKERS													
Bakers.....	3,194	4,487	5,539	4,338	.541	.238	3,804	4,830	5,718	4,796	.399	.179	
Blacksmiths, forgesmen, and hammermen.....	3,507	4,997	5,977	4,832	.511	.245	4,401	5,459	6,496	5,522	.379	.188	
Boilermakers.....	4,200	5,419	6,542	5,321	.440	.196	5,006	5,861	6,845	5,917	.311	.150	
Cabinetmakers and patternmakers.....	3,747	5,281	6,672	5,268	.555	.242	4,358	5,679	6,882	5,756	.438	.198	
Carpenters.....	2,552	4,244	5,757	4,232	.757	.295	3,835	5,179	6,483	5,199	.509	.222	
Compositors and typesetters.....	4,240	5,766	6,915	5,597	.478	.217	4,745	6,018	7,042	5,971	.385	.175	
Electricians.....	4,717	5,979	7,305	5,980	.433	.200	5,197	6,275	7,540	6,388	.367	.167	
Foremen (n.e.c.):													
Construction.....	4,458	5,957	7,534	6,100	.504	.222	4,855	6,272	7,796	6,499	.453	.200	
Manufacturing.....	5,466	6,913	8,493	7,155	.423	.197	5,644	7,041	8,588	7,330	.402	.186	
Trans., commun., & other public utilities..	5,295	6,507	7,805	6,617	.379	.163	5,423	6,611	7,869	6,749	.362	.155	
Inspectors (n.e.c.).....	4,377	5,382	6,195	5,340	.340	.172	4,832	5,561	6,414	5,674	.279	.144	
Linemen and servicemen, telegraph, etc.....	4,800	5,956	6,861	5,803	.355	.156	5,038	6,062	6,912	5,991	.313	.138	
Locomotive engineers.....	6,077	7,549	8,758	7,495	.358	.161	6,536	7,874	8,929	7,883	.304	.143	
Locomotive firemen.....	4,623	5,946	7,246	5,876	.446	.192	5,037	6,572	7,679	6,637	.323	.140	
Machinists, millwrights, and toolmakers.....	4,596	5,701	6,808	5,715	.387	.179	5,076	5,961	6,984	6,096	.313	.152	
Masons, tile setters, and stone cutters.....	3,141	4,831	6,273	4,735	.661	.269	4,134	5,626	6,975	5,642	.504	.220	
Mechanics and repairmen, and loom fixers.....	3,354	4,742	5,930	4,684	.550	.245	3,965	5,112	6,201	5,140	.435	.197	
Molders, metal.....	3,644	4,728	5,750	4,705	.448	.204	4,247	5,148	6,045	5,247	.343	.159	
Painters (const.) paperhangers, glaziers.....	2,215	3,937	5,431	3,916	.821	.313	3,719	5,021	6,107	4,988	.479	.212	
Plasterers and cement finishers.....	2,945	4,679	6,322	4,663	.534	.285	4,134	5,722	7,150	5,682	.531	.219	
Plumbers and pipe fitters.....	4,095	5,655	7,122	5,596	.541	.230	4,780	6,080	7,506	6,140	.444	.185	
Printing craft., exc. compos. & typesetters..	4,757	6,263	7,783	6,330	.478	.216	5,128	6,471	7,907	6,637	.419	.193	
Rollers and roll hands, metal.....	4,050	5,250	6,697	5,464	.484	.230	4,761	5,929	7,524	6,348	.437	.207	
Roofers and sheet metal workers.....	3,586	5,137	6,384	4,983	.562	.234	4,529	5,618	6,751	5,666	.392	.175	
Shoemakers and repairers, exc. factory.....	1,314	2,673	3,884	2,808	.915	.360	2,039	3,214	4,183	3,247	.660	.283	
Stationary engineers, crane-men, hoistmen....	4,104	5,490	6,960	5,747	.497	.247	4,621	5,906	7,472	6,318	.451	.228	
Structural metal workers.....	4,249	5,552	6,855	5,540	.470	.212	5,124	6,422	7,422	6,312	.364	.167	
Tailors and furriers.....	2,971	4,164	5,215	4,165	.539	.266	3,583	4,559	5,581	4,740	.422	.215	

Table C-3.—WAGE OR SALARY INCOME IN 1959 AT QUARTILE POSITIONS, ARITHMETIC MEAN, AND GINI RATIO, OF ALL MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE AND OF THOSE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	All workers					Full-year workers						
	Quartiles			Arith- metic mean	Inter- quartile range $\frac{Q_3 - Q_1}{\bar{x}}$	Gini ratio	Quartiles			Arith- metic mean	Inter- quartile range $\frac{Q_3 - Q_1}{\bar{x}}$	Gini ratio
	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>				Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>			
OPERATIVES AND KINDRED WORKERS												
Apprentices.....	\$1,984	\$3,521	\$4,700	\$3,418	.795	.301	\$3,317	\$4,278	\$5,181	\$4,256	.438	.194
Attendants, auto service and parking.....	874	2,146	3,535	2,389	1.114	.403	2,162	3,199	4,277	3,291	.643	.275
Brakemen and switchmen, railroad.....	4,597	5,634	6,740	5,626	.381	.185	5,255	5,968	7,074	6,199	.293	.136
Drivers, bus, taxi, & truck, & deliverymen...	2,479	4,126	5,646	4,188	.756	.309	3,387	4,756	5,994	4,830	.540	.235
Stationary firemen.....	3,421	4,748	5,917	4,670	.534	.226	4,009	5,087	6,160	5,070	.424	.187
Mine operatives and laborers (n.e.c.).....	2,602	4,215	5,585	4,164	.716	.288	4,106	5,289	6,331	5,259	.423	.196
Motormen, railway, mine, factory, etc.....	3,715	4,956	5,740	4,677	.433	.191	4,615	5,393	5,951	5,295	.252	.134
Painters, exc. construction and maintenance..	2,858	4,215	5,445	4,164	.621	.259	3,611	4,734	5,801	4,770	.459	.195
Sailors and deck hands.....	2,716	4,247	5,802	4,400	.701	.292	3,893	5,300	6,705	5,475	.514	.231
Welders and flame-cutters.....	3,806	5,039	6,099	4,959	.462	.209	4,483	5,489	6,497	5,527	.364	.162
Operatives and kindred workers (n.e.c.):												
Food and kindred products.....	2,249	3,943	5,239	3,793	.788	.306	3,451	4,607	5,666	4,588	.483	.210
Knitting mills.....	2,482	3,589	4,624	3,641	.588	.256	3,129	4,007	4,858	4,162	.415	.195
Textile mill products, exc. knitting mills.....	2,467	3,327	4,071	3,350	.479	.224	2,928	3,573	4,360	3,720	.385	.171
Apparel and other fabric textile products.....	2,438	3,693	5,045	3,879	.672	.289	3,063	4,225	5,517	4,480	.548	.232
Furniture, and lumber and wood products.....	2,034	3,162	4,491	3,291	.747	.300	2,777	3,863	4,949	3,968	.547	.221
Paper, paper products and printing.....	3,585	4,845	5,895	4,742	.487	.220	4,204	5,203	6,133	5,226	.459	.170
Chemicals and petroleum, and coal products..	4,310	5,553	6,626	5,395	.429	.189	4,813	5,832	6,785	5,805	.340	.150
Rubber products.....	3,651	4,990	6,039	4,845	.493	.216	4,225	5,287	6,315	5,303	.394	.162
Footwear industries, exc. rubber.....	2,325	3,359	4,349	3,348	.605	.253	3,015	3,778	4,711	3,908	.434	.180
Leather & leather products, exc. footwear....	2,647	3,726	4,735	3,728	.560	.248	3,310	4,206	5,076	4,252	.415	.172
Stone, clay, and glass products.....	3,237	4,555	5,727	4,519	.551	.235	4,051	5,028	5,991	5,086	.381	.177
Metal industries.....	3,503	4,659	5,719	4,620	.480	.214	4,201	5,153	6,020	5,152	.353	.158
Machinery.....	3,554	4,791	5,814	4,679	.483	.219	4,324	5,281	6,185	5,315	.348	.157
Motor vehicles & motor vehicle equipment....	4,004	5,017	5,847	4,848	.380	.199	4,788	5,586	6,493	5,691	.300	.145
Trans. equipment, exc. motor vehicle.....	3,709	4,941	5,889	4,778	.456	.216	4,566	5,422	6,278	5,489	.312	.146
SERVICE WORKERS												
Private household workers.....	509	1,043	2,356	1,585	1.165	.445	1,033	2,051	3,112	2,260	.920	.370
Firemen, fire protection.....	4,501	5,444	6,435	5,513	.351	.153	4,597	5,501	6,483	5,620	.336	.144
Guards and watchmen.....	2,482	3,935	5,214	3,885	.703	.278	3,295	4,428	5,554	4,464	.506	.205
Policemen, sheriffs, and marshals.....	4,204	5,204	6,092	5,177	.365	.175	4,358	5,298	6,180	5,352	.340	.153
Barbers, beauticians, and manicurists.....	2,121	3,533	4,855	3,658	.747	.324	2,998	4,062	5,267	4,258	.533	.259
Charmen, janitors, and porters.....	1,412	2,736	3,893	2,768	.896	.335	2,248	3,274	4,267	3,288	.614	.255
Cooks, exc. private household.....	1,967	3,356	4,725	3,460	.797	.322	2,816	3,911	5,160	4,077	.575	.248
Elevator operators.....	2,263	3,380	4,276	3,284	.613	.249	2,928	3,666	4,476	3,679	.421	.190
Waiters, bartenders, and counter workers....	1,187	2,710	4,026	2,835	1.001	.375	2,444	3,564	4,690	3,671	.612	.267
Service wkrs., exc. priv. household (n.e.c.)..	648	1,494	2,679	1,903	1.126	.414	1,584	2,502	3,429	2,605	.708	.293



Table C-3.—WAGE OR SALARY INCOME IN 1959 AT QUARTILE POSITIONS, ARITHMETIC MEAN, AND GINI RATIO, OF ALL MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE AND OF THOSE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	All workers				Full-year workers							
	Quartiles			Arith- metic mean	Inter- quartile range $\frac{Q_3 - Q_1}{\bar{x}}$	Gini ratio	Quartiles			Arith- metic mean	Inter- quartile range $\frac{Q_3 - Q_1}{\bar{x}}$	Gini ratio
	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>				Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>			
LABORERS, EXCEPT FARM AND MINE												
Fishermen and oystermen.....	\$1,171	\$2,571	\$4,354	\$3,101	1.026	.424	\$1,949	\$3,397	\$5,189	.837	\$3,870	.369
Longshoremen and stevedores.....	3,050	4,704	6,200	4,668	.675	.245	4,312	5,622	6,882	.457	5,628	.197
Lumbermen, raftsmen, and woodchoppers.....	783	1,684	3,132	2,333	1.007	.462	1,430	2,455	4,026	.870	2,983	.385
Laborers (n.e.c.):												
Manufacturing industries:												
Food and kindred products.....	1,727	3,317	4,789	3,343	.916	.334	3,076	4,286	5,377	.542	4,245	.219
Textiles, textile products, and apparel..	1,784	2,605	3,445	2,619	.634	.269	2,384	2,963	3,727	.731	3,116	.177
Furniture, and lumber and wood products..	1,302	2,396	3,744	2,649	.922	.358	2,296	3,203	4,556	.651	3,474	.267
Paper, paper products, and printing.....	2,527	3,995	4,995	3,783	.652	.267	3,561	4,498	5,392	.410	4,468	.179
Chemicals & petroleum, & coal products...	2,896	4,291	5,414	4,107	.613	.250	3,855	4,843	5,708	.390	4,756	.174
Stone, clay, and glass products.....	2,389	3,693	4,821	3,663	.664	.269	3,240	4,343	5,296	.474	4,337	.204
Metal industries.....	2,911	4,008	4,963	3,901	.526	.233	3,647	4,600	5,550	.414	4,595	.172
Machinery.....	2,578	3,915	4,892	3,755	.616	.257	3,578	4,474	5,336	.393	4,471	.168
Motor vehicles & motor vehicle equipment.	3,067	4,433	5,424	4,186	.563	.241	4,278	5,174	5,935	.323	5,126	.149
Trans. equipment, exc. motor vehicles....	2,338	3,871	4,825	3,621	.687	.265	3,749	4,557	5,352	.357	4,485	.161
Nonmanufacturing industries:												
Construction.....	1,455	2,851	4,236	3,015	.922	.356	2,726	3,773	4,969	.565	3,971	.250
Railroads and railway express service....	2,861	4,024	4,694	3,742	.490	.219	3,745	4,390	4,883	.263	4,325	.129
Transportation, exc. railroad.....	1,611	3,358	4,958	3,402	.984	.350	3,145	4,450	5,561	.552	4,375	.231
Telecommun. & utilities & sanitary serv..	2,193	3,440	4,658	3,445	.716	.286	2,861	3,888	4,941	.526	3,952	.218
Wholesale and retail trade.....	754	2,117	4,102	2,537	1.320	.432	2,315	3,822	4,977	.721	3,692	.282

Source: Derived from data in tables C-1 and C-2.

Table C-4.—WAGE OR SALARY INCOME IN 1959 AT QUINTILE POSITIONS AND SHARE OF AGGREGATE INCOME RECEIVED BY EACH FIFTH OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY SELECTED OCCUPATIONS: 1960

[Based on 5-percent sample]

Occupation	Upper limit of each fifth				Fourth	Percent distribution of aggregate income					
	Lowest	Second	Middle	Total		Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth	
PROFESSIONAL, TECHNICAL, KINDRED WORKERS											
Artists and art teachers.....	\$3,891	\$5,455	\$6,782		\$8,660	100.0	6.5	14.3	18.0	22.7	38.5
Authors, editors, and reporters.....	4,481	6,233	7,696		10,013	100.0	6.5	14.1	17.7	22.4	39.2
Chemists.....	5,193	6,494	7,749		9,634	100.0	9.3	15.6	18.7	22.9	33.5
Clergymen.....	1,832	3,364	4,423		5,597	100.0	5.4	13.5	19.7	24.5	36.9
College pres., professors, instr's (n.e.c.)..	3,845	6,300	7,883		10,019	100.0	5.5	14.3	19.0	24.2	37.0
Designers and draftsmen.....	4,014	5,390	6,487		7,853	100.0	8.1	16.0	19.6	23.2	33.1
Engineers, civil.....	5,238	6,820	8,165		9,852	100.0	9.1	15.6	19.6	22.9	32.8
Engineers, electrical.....	6,288	7,820	9,107		11,023	100.0	10.0	16.1	19.5	22.9	31.6
Engineers, mechanical.....	6,241	7,669	8,973		10,961	100.0	10.2	15.9	18.7	22.8	32.4
Musicians and music teachers.....	1,656	3,913	5,429		7,073	100.0	3.2	11.1	19.5	25.1	41.0
Pharmacists.....	4,167	6,008	7,230		8,605	100.0	7.1	15.6	20.1	23.5	33.7
Social, welfare, and recreation workers.....	2,370	4,387	5,488		6,802	100.0	4.4	14.6	19.9	24.2	36.9
Sports instructors, athletes, entertainers...	2,311	4,336	5,727		7,228	100.0	4.3	13.0	19.0	24.3	39.4
Teachers (n.e.c.).....	3,665	4,924	5,920		7,247	100.0	8.2	15.5	19.5	24.0	32.8
SALARIED MANAGERS AND OFFICIALS											
Conductors, railroad.....	5,427	6,590	7,664		8,737	100.0	12.0	16.8	20.0	22.9	28.3
Postmasters, & misc. government officials....	4,330	5,603	6,669		8,238	100.0	8.9	15.5	18.8	22.7	34.2
Managers and officials:											
Manufacturing.....	5,695	7,581	9,845		14,203	100.0	6.5	11.0	14.1	19.2	49.2
Trans., commun., & other public utilities..	8,775	5,498	6,895		8,214	100.0	9.3	14.0	17.4	20.9	38.5
Wholesale trade.....	4,879	6,400	8,265		12,260	100.0	6.3	10.6	13.4	18.4	51.3
Eating and drinking places.....	2,908	4,292	5,464		7,180	100.0	6.1	13.3	17.6	22.1	40.8
Retail trade, exc. eating and drinking.....	4,029	5,245	6,430		8,461	100.0	8.0	13.5	16.6	20.9	40.9
Finance, insurance, and real estate.....	5,166	6,734	8,612		12,111	100.0	7.2	11.8	15.2	20.2	45.6
Business and repair services.....	4,551	6,128	8,071		12,506	100.0	6.6	11.4	15.0	21.3	45.6
Personal services.....	2,884	4,576	5,907		8,157	100.0	4.6	11.6	15.7	21.2	46.8
CLERICAL, SALES, AND KINDRED WORKERS											
Baggagemen, express mess., rvy. mail clerks...	4,088	4,975	5,611		6,410	100.0	11.1	16.8	20.9	22.8	28.4
Bookk'prs, acts., cashiers, ticket agents...	3,230	4,875	5,986		7,529	100.0	6.1	14.5	19.1	24.3	36.0
Mail carriers.....	4,249	5,062	5,463		5,864	100.0	11.3	18.7	21.5	27.0	27.0
Messengers, except express.....	527	1,117	2,248		3,524	100.0	4.7	5.9	16.4	27.1	46.0
Shipping and receiving clerks.....	2,696	3,757	4,582		5,494	100.0	8.1	15.9	20.6	24.3	31.1
Stenographers, typists, and secretaries.....	2,438	4,029	5,208		7,026	100.0	4.7	12.4	17.4	22.4	43.0



Table C-4.—WAGE OR SALARY INCOME IN 1959 AT QUINTILE POSITIONS AND SHARE OF AGGREGATE INCOME RECEIVED BY EACH FIFTH OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Upper limit of each fifth				Total	Percent distribution of aggregate income				
	Lowest	Second	Middle	Fourth		Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
CLERICAL, SALES, & KINDRED WORKERS--Con.										
Telegraph operators.....	\$4, 399	\$5, 142	\$5, 539	\$5, 936	100.0	12.6	18.6	20.6	20.6	27.7
Newsboys.....	213	430	645	860	100.0	13.1	13.1	13.1	13.1	47.6
Insurance agents and brokers.....	3, 992	5, 295	6, 421	8, 115	100.0	7.4	14.8	18.0	22.0	37.8
Real estate agents and brokers.....	2, 371	4, 391	6, 104	8, 977	100.0	3.8	10.4	15.9	22.2	47.8
Salesmen and sales clerks (n.e.c.).....	2, 332	4, 208	5, 630	7, 566	100.0	4.1	12.2	17.8	23.4	42.4
CRAFTSMEN, FOREMEN, AND KINDRED WORKERS										
Bakers.....	2, 817	4, 055	4, 919	5, 745	100.0	7.3	16.1	20.2	24.9	31.5
Blacksmiths, forgemn, and hammermen.....	3, 105	4, 468	5, 390	6, 347	100.0	7.2	16.1	20.6	23.8	32.2
Boilermakers.....	3, 862	5, 024	5, 814	6, 805	100.0	9.4	16.9	20.2	23.6	29.9
Cabinetmakers and patternmakers.....	3, 340	4, 719	5, 807	6, 969	100.0	7.8	15.4	19.8	23.9	33.0
Carpenters.....	2, 147	3, 616	4, 838	6, 091	100.0	5.5	13.9	19.7	25.9	35.0
Compositors and typesetters.....	3, 809	5, 257	6, 242	7, 233	100.0	8.4	16.6	20.6	23.8	30.5
Electricians.....	4, 325	5, 521	6, 478	7, 640	100.0	9.8	16.8	20.0	23.3	30.1
Foremen (n.e.c.):										
Construction.....	4, 115	5, 397	6, 557	7, 882	100.0	9.5	15.8	19.5	23.3	32.0
Manufacturing.....	5, 156	6, 356	7, 501	8, 865	100.0	11.0	16.2	19.3	22.5	31.0
Trans., commun., & other public utilities..	5, 052	6, 023	6, 991	8, 124	100.0	12.0	16.7	19.2	23.3	28.8
Inspectors (n.e.c.).....	4, 106	5, 099	5, 665	6, 504	100.0	10.8	17.5	20.1	22.5	29.1
Linemen and servicemen, telegraphers, etc....	4, 471	5, 221	6, 323	7, 077	100.0	11.5	17.4	20.5	22.8	27.7
Locomotive engineers.....	5, 706	7, 029	8, 061	8, 990	100.0	11.9	17.0	20.2	22.2	28.7
Locomotive firemen.....	4, 226	5, 479	6, 444	7, 559	100.0	9.9	16.9	20.2	23.6	29.4
Machinists, millwrights, and toolmakers.....	4, 286	5, 321	6, 100	7, 080	100.0	10.8	17.1	19.8	22.9	29.3
Masons, tile setters, and stone cutters.....	2, 688	4, 207	5, 402	6, 603	100.0	6.4	14.8	20.4	25.1	33.3
Mechanics and repairmen, and loom fixers.....	3, 032	4, 247	5, 225	6, 267	100.0	7.5	15.9	20.2	24.3	32.1
Molders, metal.....	3, 333	4, 351	5, 118	5, 961	100.0	9.7	16.7	19.8	22.8	30.9
Painters (const.), paperhangers, glaziers....	1, 794	3, 309	4, 526	5, 744	100.0	4.7	13.4	20.0	25.9	36.0
Plasterers and cement finishers.....	2, 491	4, 018	5, 327	6, 684	100.0	6.1	13.9	20.3	25.5	34.3
Plumbers and pipe fitters.....	3, 640	5, 118	6, 210	7, 503	100.0	8.2	15.9	20.2	24.3	31.4
Printing craft., exc. compos. & typesetters..	4, 355	5, 694	6, 821	8, 174	100.0	9.4	15.9	19.6	23.8	31.3
Rollers and roll hands, metal.....	3, 697	4, 764	5, 746	7, 073	100.0	9.3	15.6	19.2	23.3	32.7
Roofers and sheet metal workers.....	3, 179	4, 585	5, 597	6, 692	100.0	7.7	15.9	20.5	24.3	31.5
Shoemakers and repairers, exc. factory.....	1, 046	2, 122	3, 188	4, 202	100.0	3.9	11.4	19.2	25.8	39.7
Stationary engineers, cranesmen, hoistmen....	3, 717	4, 980	5, 998	7, 446	100.0	8.7	14.9	19.0	23.7	33.8
Structural metal workers.....	3, 883	5, 129	5, 975	7, 222	100.0	8.8	16.6	19.4	24.3	30.9
Tailors and furriers.....	2, 486	3, 718	4, 553	5, 521	100.0	6.8	15.3	20.1	23.8	33.9

Table C-4. — WAGE OR SALARY INCOME IN 1959 AT QUINTILE POSITIONS AND SHARE OF AGGREGATE INCOME RECEIVED BY EACH FIFTH OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Upper limit of each fifth					Percent distribution of aggregate income				
	Lowest	Second	Middle	Fourth	Total	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
OPERATIVES AND KINDRED WORKERS										
Apprentices.....	\$1,595	\$3,044	\$3,998	\$4,934	100.0	5.1	13.4	20.0	26.2	35.3
Attendants, auto service and parking.....	699	1,612	2,676	3,836	100.0	4.1	8.9	17.7	26.6	42.7
Brakemen and switchmen, railroad.....	4,264	5,299	5,969	7,005	100.0	10.4	17.5	19.1	23.6	29.4
Drivers, bus, taxi, & truck, & deliverymen.....	2,099	3,508	4,724	5,957	100.0	5.3	13.7	19.5	25.0	36.5
Stationary firemen.....	3,099	4,281	5,212	6,226	100.0	8.3	16.2	20.3	24.3	31.0
Mine operatives and laborers (n.e.c.).....	2,186	3,631	4,749	5,869	100.0	5.7	14.3	20.0	25.2	34.8
Motormen, railway, mine, factory, etc.....	3,366	4,498	5,278	5,893	100.0	9.3	17.1	21.2	22.9	29.4
Painters, exc. construction and maintenance.....	2,478	3,709	4,682	5,717	100.0	7.1	15.0	20.2	24.7	32.9
Sailors and deck hands.....	2,377	3,654	4,825	6,207	100.0	6.6	13.7	19.0	25.1	35.7
Welders and flame-cutters.....	3,434	4,578	5,448	6,431	100.0	9.2	16.4	20.3	23.6	30.4
Operatives and kindred workers (n.e.c.):										
Food and kindred products.....	1,816	3,321	4,452	5,539	100.0	4.6	14.0	20.7	26.1	34.6
Knitting mills.....	2,233	3,184	3,993	4,835	100.0	7.7	15.0	18.8	24.7	33.9
Textile mill products, exc. knitting mills.....	2,269	3,044	3,610	4,362	100.0	9.3	15.5	20.4	23.1	31.7
Apparel and other fabric textile products.....	2,182	3,200	4,207	5,432	100.0	6.9	13.9	19.0	24.6	35.6
Furniture, and lumber and wood products.....	1,704	2,698	3,670	4,780	100.0	6.0	13.7	19.1	25.3	35.9
Paper, paper products, and printing.....	3,246	4,397	5,271	6,189	100.0	8.3	16.5	20.4	23.8	31.0
Chemicals and petroleum, and coal products.....	4,019	5,131	5,974	6,844	100.0	9.6	17.2	19.9	24.0	29.3
Rubber products.....	3,306	4,494	5,405	6,370	100.0	8.7	16.4	20.6	23.9	30.4
Footwear industries, exc. rubber.....	2,097	3,007	3,711	4,606	100.0	7.2	15.0	20.4	24.6	32.8
Leather & leather products, exc. footwear.....	2,338	3,350	4,112	4,943	100.0	7.7	15.8	19.6	23.6	33.3
Stone, clay, and glass products.....	2,895	4,115	4,995	5,971	100.0	7.8	15.9	19.4	24.3	32.6
Metal industries.....	3,203	4,266	5,060	5,938	100.0	9.0	16.5	19.9	23.2	31.3
Machinery.....	3,198	4,368	5,205	6,034	100.0	8.4	16.7	20.4	23.7	30.8
Motor vehicles & motor vehicle equipment.....	3,538	4,614	5,349	6,031	100.0	9.0	17.3	20.8	23.0	29.9
Trans. equipment, exc. motor vehicle.....	3,294	4,504	5,326	6,153	100.0	8.4	16.9	20.7	23.6	30.4
SERVICE WORKERS										
Private household workers.....	407	814	1,533	2,681	100.0	6.2	6.2	13.2	25.4	49.0
Firemen, fire protection.....	4,288	5,110	5,779	6,695	100.0	12.6	17.0	19.5	22.5	28.4
Guards and watchmen.....	2,139	3,339	4,431	5,529	100.0	6.0	14.7	20.2	25.3	33.8
Policemen, sheriffs, and marshals.....	3,989	4,832	5,544	6,384	100.0	10.6	17.1	20.5	22.7	29.0
Barbers, beauticians, and manicurists.....	1,739	3,053	4,016	5,203	100.0	5.0	13.2	19.2	25.2	37.4
Charmen, janitors, and porters.....	1,100	2,263	3,203	4,179	100.0	4.2	12.7	19.7	26.3	37.1
Cooks, exc. private household.....	1,596	2,840	3,848	5,042	100.0	5.1	12.7	19.3	25.7	37.2
Elevator operators.....	1,985	3,049	3,711	4,492	100.0	6.4	15.7	20.8	24.9	32.1
Waiters, bartenders, and counter workers.....	909	2,120	3,257	4,398	100.0	3.4	10.6	19.3	26.5	40.1
Service wkrs., exc. priv. household (n.e.c.).....	519	1,062	1,927	2,934	100.0	5.4	6.4	16.2	26.6	45.3



Table C-4.—WAGE OR SALARY INCOME IN 1959 AT QUINTILE POSITIONS AND SHARE OF AGGREGATE INCOME RECEIVED BY EACH FIFTH OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Upper limit of each fifth			Percent distribution of aggregate income						
	Lowest	Second	Middle	Fourth	Total	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
LABORETS, EXCEPT FARM AND MINE										
Fishermen and oystermen.....	\$913	\$2,002	\$3,183	\$4,806	100.0	3.1	9.1	16.9	25.2	45.6
Longshoremen and stevedores.....	2,606	4,086	5,298	6,567	100.0	6.4	14.4	20.3	25.1	33.8
Lumbermen, raftsmen, and woodchoppers.....	626	1,305	2,105	3,743	100.0	4.2	7.7	13.6	23.9	50.6
LABORERS (n.e.c.):										
Manufacturing industries:										
Food and kindred products.....	1,360	2,702	3,926	5,099	100.0	4.4	12.2	19.3	27.3	36.8
Textiles, textile products, and apparel..	1,453	2,327	2,884	3,651	100.0	6.3	15.8	18.6	25.4	33.9
Furniture, and lumber and wood products..	1,074	1,985	2,806	4,123	100.0	4.4	11.1	18.6	25.6	40.4
Paper, paper products, and printing.....	2,109	3,480	4,396	5,297	100.0	5.6	15.5	21.1	25.2	32.6
Chemicals & petroleum, & coal products...	2,459	3,801	4,735	5,643	100.0	6.8	15.3	20.9	25.3	31.6
Stone, clay, and glass products.....	2,104	3,208	4,161	5,069	100.0	6.6	14.7	20.1	24.9	33.7
Metal industries.....	2,535	3,585	4,390	5,261	100.0	8.0	16.2	20.6	24.2	31.0
Machinery.....	2,216	3,438	4,316	5,144	100.0	6.6	15.6	20.8	24.7	32.3
Motor vehicles & motor vehicle equipment..	2,512	4,069	4,797	5,649	100.0	6.6	16.2	21.0	25.0	31.2
Trans. equipment, exc. motor vehicle.....	1,987	3,309	4,280	5,013	100.0	5.7	15.3	21.4	25.1	32.6
Nonmanufacturing industries:										
Construction.....	1,148	2,323	3,378	4,605	100.0	4.1	11.9	18.9	25.8	39.3
Railroads and railway express service....	2,473	3,592	4,292	4,828	100.0	7.9	16.7	21.6	23.5	30.4
Transportation, exc. railroad.....	1,205	2,691	4,015	5,288	100.0	3.7	11.7	19.5	27.6	37.6
Telecommun. & utilities & sanitary serv..	1,884	2,983	3,895	4,917	100.0	5.8	13.9	20.1	25.4	34.9
Wholesale and retail trade.....	603	1,446	2,899	4,485	100.0	3.8	6.6	16.2	29.6	43.7

Source: Unpublished data from the 1960 Census of Population.

Table C-5.—WAGE OR SALARY INCOME IN 1959 AT QUINTILE POSITIONS AND SHARE OF AGGREGATE INCOME RECEIVED BY EACH FIFTH OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960

[Based on 5-percent sample]

Occupation	Upper limit of each fifth			Percent distribution of aggregate income						
	Lowest	Second	Middle	Fourth	Total	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
PROFESSIONAL, TECHNICAL, KINDRED WORKERS										
Artists and art teachers.....	\$4,753	\$6,046	\$7,289	\$9,093	100.0	9.1	14.6	18.0	21.7	36.6
Authors, editors, and reporters.....	5,318	6,656	7,999	10,394	100.0	9.1	14.3	17.2	22.0	37.5
Chemists.....	5,667	6,848	8,024	9,914	100.0	11.2	15.6	18.8	22.0	32.4
Clergymen.....	2,081	3,570	4,538	5,689	100.0	6.0	14.3	19.6	24.0	36.0
College pres., professors, instr's (n.e.c.)..	5,404	7,126	8,593	10,813	100.0	8.5	14.9	18.4	22.5	35.7
Designers and draftsmen.....	4,739	5,805	6,786	8,098	100.0	11.1	16.1	19.1	22.7	31.0
Engineers, civil.....	5,859	7,182	8,424	10,127	100.0	10.8	16.2	19.1	22.3	31.6
Engineers, electrical.....	6,810	8,104	9,362	11,254	100.0	11.6	16.4	19.0	22.3	30.6
Engineers, mechanical.....	6,610	7,918	9,202	11,165	100.0	11.6	15.8	19.0	22.2	31.4
Musicians and music teachers.....	3,096	4,864	6,009	7,712	100.0	5.9	13.9	18.9	23.4	37.9
Pharmacists.....	5,053	6,399	7,475	8,810	100.0	9.2	16.4	19.5	22.5	32.4
Social, welfare, and recreation workers.....	4,163	5,093	5,936	7,220	100.0	10.2	15.8	18.4	22.8	32.9
Sports instructors, athletes, entertainers...	3,789	5,186	6,221	7,618	100.0	7.9	15.1	18.7	22.2	36.1
Teachers (n.e.c.).....	4,333	5,391	6,379	7,737	100.0	10.8	15.9	19.0	22.4	31.9
SALARIED MANAGERS AND OFFICIALS										
Conductors, railroad.....	5,832	6,944	7,874	8,858	100.0	13.0	17.0	19.9	22.5	27.7
Postmasters, and misc. government officials..	4,624	5,779	6,791	8,411	100.0	10.2	15.5	18.6	22.4	33.3
Managers and officials:										
Manufacturing.....	6,037	7,846	10,153	14,587	100.0	7.1	11.0	14.3	19.0	48.6
Trans., commun., & other public utilities..	8,949	5,661	7,009	8,332	100.0	9.8	14.2	17.1	20.7	38.2
Wholesale trade.....	5,138	6,589	8,466	12,526	100.0	7.1	10.5	13.4	18.3	50.7
Eating and drinking places.....	3,590	4,827	5,864	7,727	100.0	8.2	13.5	17.2	21.7	39.4
Retail trade, exc. eating and drinking.....	4,308	5,451	6,626	8,705	100.0	9.1	13.5	16.4	20.6	40.4
Finance, insurance, and real estate.....	5,366	6,875	8,732	12,243	100.0	7.9	11.8	15.2	20.1	45.0
Business and repair services.....	5,015	6,505	8,533	13,087	100.0	7.4	11.7	15.0	21.2	44.7
Personal services.....	7,306	5,105	6,378	8,760	100.0	6.5	12.1	15.6	20.1	45.8
CLERICAL, SALES, AND KINDRED WORKERS										
Baggagemen, express mess., rwy. mail clerks..	4,336	5,124	5,716	6,500	100.0	13.3	17.3	19.7	22.3	27.4
Bookk'prs, accts., cashiers, ticket agents....	4,216	5,370	6,392	7,845	100.0	9.6	15.6	18.7	22.3	33.9
Mail carriers.....	5,171	5,536	5,536	5,900	100.0	14.2	18.9	20.4	20.4	26.1
Messengers, except express.....	1,738	2,640	3,427	4,467	100.0	5.9	14.6	19.2	24.2	36.1
Shipping and receiving clerks.....	3,345	4,176	5,693	6,931	100.0	11.9	16.5	19.3	23.4	29.0
Stenographers, typists, and secretaries.....	3,494	4,603	5,673	7,571	100.0	8.1	13.5	16.8	21.3	40.4



Table C-5.—WAGE OR SALARY INCOME IN 1959 AT QUINTILE POSITIONS AND SHARE OF AGGREGATE INCOME RECEIVED BY EACH FIFTH OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Upper limit of each fifth				Total	Percent distribution of aggregate income				
	Lowest	Second	Middle	Fourth		Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
CLERICAL, SALES, & KINDRED WORKERS--Con.										
Telegraph operators.....	\$4,808	\$5,288	\$5,636	\$5,985	100.0	14.4	19.2	19.5	19.6	27.3
Newsboys.....	221	442	662	883	100.0	11.3	11.3	11.3	11.3	54.7
Insurance agents and brokers.....	4,506	5,609	6,678	8,405	100.0	9.7	14.9	17.7	21.6	36.1
Real estate agents and brokers.....	3,333	5,179	6,858	9,916	100.0	5.1	11.5	15.8	21.9	45.7
Salesmen and sales clerks (n.e.c.).....	3,605	4,975	6,198	8,093	100.0	7.5	13.3	17.9	22.1	39.2
CRAFTSMEN, FOREMEN, AND KINDRED WORKERS										
Bakers.....	3,507	4,448	5,194	5,893	100.0	10.9	16.9	20.0	22.4	29.7
Blacksmiths, forgesmen, and hammermen.....	4,138	5,122	5,795	6,774	100.0	10.7	16.9	19.5	22.6	30.3
Boilermakers.....	4,684	5,519	6,239	7,087	100.0	12.5	17.6	19.8	22.3	27.8
Cabinetmakers and patternmakers.....	4,053	5,211	6,152	7,249	100.0	10.2	16.3	19.7	23.0	30.8
Carpenters.....	3,464	4,670	5,658	6,789	100.0	9.2	15.8	19.9	23.6	31.6
Compositors and typesetters.....	4,375	5,547	6,421	7,380	100.0	11.1	16.8	20.2	22.8	29.1
Electricians.....	4,969	5,832	6,729	7,839	100.0	11.6	16.9	19.7	22.5	29.1
Foremen (n.e.c.):										
Construction.....	4,502	5,707	6,858	8,183	100.0	10.9	15.7	19.1	23.3	31.0
Manufacturing.....	5,333	6,500	7,615	8,942	100.0	11.8	16.2	19.1	22.2	30.7
Trans., commun., & other public utilities..	5,182	6,142	7,088	8,205	100.0	12.8	16.7	19.5	22.6	28.4
Inspectors (n.e.c.).....	4,537	5,308	5,815	6,683	100.0	13.0	17.9	18.9	22.0	28.2
Linemen and servicemen, telegraphers, etc....	4,732	5,661	6,402	7,152	100.0	12.8	17.5	20.4	22.3	27.0
Locomotive engineers.....	6,211	7,385	8,308	9,251	100.0	13.1	17.4	20.0	22.1	27.5
Locomotive firemen.....	5,329	6,158	6,987	7,911	100.0	13.6	17.2	19.1	22.6	27.5
Machinists, millwrights, and toolmakers.....	4,804	5,607	6,366	7,335	100.0	12.6	17.4	19.6	22.2	28.1
Masons, tile setters, and stone cutters.....	3,734	5,130	6,137	7,354	100.0	9.0	15.9	19.9	23.8	31.3
Mechanics and repairmen, and loom fixers.....	3,635	4,666	5,518	6,520	100.0	10.5	16.3	20.0	23.1	30.1
Molders, metal.....	4,066	4,791	5,499	6,349	100.0	12.5	16.8	19.9	22.2	28.5
Painters (const.), paperhangers, glaziers....	3,395	4,528	5,440	6,431	100.0	9.5	16.0	20.1	23.4	30.9
Plasterers and cement finishers.....	3,714	5,168	6,286	7,447	100.0	9.0	15.9	20.2	24.1	30.9
Plumbers and pipe fitters.....	4,414	5,585	6,616	7,830	100.0	10.7	16.5	19.8	23.2	29.9
Printing craft., exc. compos. & typesetters..	4,781	5,954	6,895	8,327	100.0	11.0	16.0	19.3	23.4	30.3
Rollers and roll hands, metal.....	4,452	5,489	6,518	7,906	100.0	10.9	15.8	18.7	22.3	32.3
Roofers and sheet metal workers.....	4,245	5,249	5,987	7,011	100.0	11.4	17.0	18.9	23.5	29.1
Shoemakers and repairers, exc. factory.....	1,736	2,800	3,567	4,513	100.0	6.6	13.9	20.2	24.1	35.2
Stationary engineers, cranesmen, hoistmen....	4,303	5,430	6,455	7,909	100.0	10.4	15.6	18.7	22.1	33.2
Structural metal workers.....	4,886	5,668	6,544	7,780	100.0	12.1	17.0	19.3	22.3	29.3
Tailors and furriers.....	3,332	4,224	4,894	5,826	100.0	10.3	16.2	18.5	22.7	32.3

Table C-5.—WAGE OR SALARY INCOME IN 1959 AT QUINTILE POSITIONS AND SHARE OF AGGREGATE INCOME RECEIVED BY EACH FIFTH OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Upper limit of each fifth			Percent distribution of aggregate income						
	Lowest	Second	Middle	Fourth	Total	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
OPERATIVES AND KINDRED WORKERS										
Apprentices.....	\$3,111	\$3,933	\$4,611	\$5,456	100.0	10.1	16.1	20.8	23.3	29.8
Attendants, auto service and parking.....	1,915	2,794	3,589	4,588	100.0	6.7	14.6	19.8	24.2	34.7
Brakemen and switchmen, railroad.....	5,112	5,683	6,389	7,429	100.0	13.6	17.3	19.5	22.0	27.6
Drivers, bus, taxi, & truck, & deliverymen....	3,088	4,244	5,257	6,385	100.0	8.7	15.4	19.7	23.8	32.5
Stationary firemen.....	3,653	4,659	5,496	6,457	100.0	10.7	16.6	20.1	23.3	29.2
Mine operatives and laborers (n.e.c.).....	3,751	4,885	5,660	6,614	100.0	10.0	16.3	20.4	23.1	30.1
Motormen, railway, mine, factory, etc.....	4,354	5,170	5,616	6,172	100.0	12.7	18.4	20.3	21.9	26.7
Painters, exc. construction and maintenance...	3,344	4,320	5,154	6,032	100.0	10.8	16.2	19.7	23.2	30.0
Sailors and deck hands.....	3,542	4,779	5,787	7,061	100.0	9.5	15.1	19.3	23.4	32.7
Welders and flame-cutters.....	4,237	5,151	5,827	6,749	100.0	12.1	17.1	19.4	22.7	28.6
Operatives and kindred workers (n.e.c.):										
Food and kindred products.....	3,165	4,213	5,002	5,888	100.0	9.7	16.4	19.7	23.4	30.8
Knitting mills.....	2,926	3,656	4,348	5,073	100.0	10.8	16.4	19.4	22.1	31.3
Textile mill products, exc. knitting mills.....	2,716	3,327	3,819	4,595	100.0	12.2	17.0	18.4	22.6	29.9
Apparel and other fabric textile products....	2,807	3,758	4,695	5,821	100.0	9.7	14.7	18.9	23.1	33.7
Furniture, and lumber and wood products....	2,555	3,431	4,296	5,261	100.0	10.2	15.1	19.4	23.7	31.6
Paper, paper products, and printing.....	3,994	4,827	5,551	6,449	100.0	11.2	17.0	20.3	22.6	28.9
Chemicals and petroleum, and coal products...	4,519	5,451	6,231	6,975	100.0	12.5	17.4	20.0	21.9	28.1
Rubber products.....	3,999	4,903	5,652	6,604	100.0	11.5	16.8	20.3	22.8	28.5
Footwear industries, exc. rubber.....	2,785	3,473	4,110	4,911	100.0	11.5	16.7	18.9	22.5	30.5
Leather & leather products, exc. footwear...	3,128	3,857	4,544	5,322	100.0	11.5	16.1	20.3	22.9	29.3
Stone, clay, and glass products.....	3,735	4,637	5,413	6,341	100.0	11.1	16.8	19.9	22.7	29.6
Metal industries.....	4,006	4,785	5,496	6,358	100.0	12.1	17.1	20.3	22.6	27.9
Machinery.....	4,118	4,943	5,608	6,470	100.0	12.2	16.5	20.5	22.4	28.4
Motor vehicles & motor vehicle equipment....	4,530	5,305	5,867	6,734	100.0	13.0	17.7	18.9	22.3	28.1
Trans. equipment, exc. motor vehicle.....	4,358	5,132	5,711	6,554	100.0	13.2	17.3	19.6	22.2	27.8
SERVICE WORKERS										
Private household workers.....	827	1,644	2,461	3,418	100.0	4.3	11.3	18.2	25.2	41.0
Firemen, fire protection.....	4,387	5,176	5,826	6,733	100.0	13.4	17.0	19.1	22.4	28.1
Guards and watchmen.....	3,053	4,020	4,836	5,806	100.0	9.8	15.8	19.7	23.8	30.9
Policemen, sheriffs, and marshals.....	4,154	4,968	5,621	6,457	100.0	12.5	16.4	20.4	22.3	28.4
Barbers, beauticians, and manicurists.....	2,650	3,635	4,511	5,593	100.0	8.1	15.1	19.1	23.3	34.4
Charmen, janitors, and porters.....	2,034	2,891	3,642	4,521	100.0	7.3	14.8	20.5	24.5	32.9
Cooks, exc. private household.....	1,596	2,840	3,848	5,042	100.0	8.6	15.1	19.1	23.8	33.3
Elevator operators.....	1,985	3,049	3,711	4,495	100.0	10.4	17.2	18.6	24.2	29.6
Waiters, bartenders, and counter workers....	909	2,120	3,257	4,398	100.0	7.3	14.9	18.6	24.1	35.0
Service wkr.s, exc. priv. household (n.e.c.)...	1,362	2,179	2,825	3,653	100.0	6.9	13.6	18.7	24.9	35.8



Table C-5.—WAGE OR SALARY INCOME IN 1959 AT QUINTILE POSITIONS AND SHARE OF AGGREGATE INCOME RECEIVED BY EACH FIFTH OF MALE WAGE AND SALARY WORKERS IN THE EXPERIENCED CIVILIAN LABOR FORCE WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1960—Con.

[Based on 5-percent sample]

Occupation	Upper limit of each fifth			Percent distribution of aggregate income						
	Lowest	Second	Middle	Fourth	Total	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
LABORERS, EXCEPT FARM AND MINE										
Fishermen and oystermen.....	\$1,595	\$2,833	\$3,953	\$5,796	100.0	4.7	11.3	17.2	24.9	41.9
Longshoremen and stevedores.....	4,019	5,153	6,102	7,206	100.0	9.9	16.5	19.9	23.5	30.1
Lumbermen, raftsmen, and woodchoppers.....	1,220	2,058	2,852	4,542	100.0	5.0	10.6	16.4	24.2	43.8
LABORERS (n.e.c.):										
Manufacturing industries:										
Food and kindred products.....	2,767	3,846	4,693	5,630	100.0	9.0	15.5	20.4	24.2	30.9
Textiles, textile products, and apparel..	2,268	2,731	3,261	3,882	100.0	12.5	15.7	19.1	21.9	30.8
Furniture, and lumber and wood products..	2,131	2,790	3,761	4,816	100.0	8.5	14.0	18.4	24.5	34.6
Paper, paper products, and printing.....	3,314	4,189	4,807	5,617	100.0	10.9	17.0	19.7	23.4	29.0
Chemicals & petroleum, & coal products...	3,531	4,473	5,197	5,879	100.0	11.1	17.3	20.3	22.6	28.8
Stone, clay, and glass products.....	2,979	4,003	4,683	5,557	100.0	9.6	16.3	20.3	23.4	30.4
Metal industries.....	3,400	4,264	4,936	5,760	100.0	11.5	16.9	19.1	23.7	28.8
Machinery.....	3,344	4,177	4,772	5,564	100.0	11.6	17.0	19.7	23.1	28.6
Motor vehicles & motor vehicle equipment.	4,091	4,839	5,478	6,183	100.0	12.2	17.2	20.7	22.3	27.6
Trans. equipment, exc. motor vehicle.....	3,432	4,292	4,822	5,564	100.0	11.2	17.9	19.6	23.4	27.9
Nonmanufacturing industries:										
Construction.....	2,464	3,382	4,212	5,339	100.0	8.8	15.0	18.8	23.7	33.8
Railroads and railway express service....	3,500	4,193	4,587	4,982	100.0	12.7	18.4	20.3	20.4	28.2
Transportation, exc. railroad.....	2,807	3,992	4,906	5,777	100.0	8.3	15.2	20.4	24.6	31.5
Telecommun. & utilities & sanitary serv..	2,594	3,492	4,305	5,227	100.0	9.7	15.7	19.6	23.8	31.2
Wholesale and retail trade.....	1,974	3,265	4,305	5,270	100.0	5.6	14.8	20.7	25.6	33.3

Source : Unpublished data from the 1960 Census of Population.

Table C-6.—SELECTED ESTIMATES FOR MALE WAGE AND SALARY WORKERS, BY SELECTED OCCUPATIONS: 1959, 1949, AND 1939

Occupation	Percent distribution			Proportion of full-year workers			Mean income			Interquartile range			Gini ratio			Share of income received by top 20 percent		
	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1939
Total experienced civilian labor force...	100.0	100.0	100.0															
PROFESSIONAL, TECHNICAL, KINDRED WORKERS																		
Artists and art teachers.....	0.2	0.1	0.1	72.1	68.4	66.2	\$6,706	\$4,350	\$2,194	.542	.601	.738	.311	.379	.379	38.5	45.2	48.5
Authors, editors, and reporters.....	0.3	0.2	0.2	82.8	77.8	82.2	7,775	5,562	2,911	.537	.606	.768	.317	.379	.379	39.2	46.5	47.5
Chemists.....	0.3	0.3	0.3	87.5	80.7	83.6	7,513	4,593	2,517	.455	.519	.578	.236	.280	.280	33.9	38.9	43.9
Clergymen.....	0.6	0.5	0.6	88.2	84.9	90.2	3,990	2,492	1,512	.748	.788	.678	.317	.329	.329	36.9	38.7	43.7
College pres., professors, instr's (n.e.c.)...	0.5	0.4	0.3	58.1	56.0	51.8	7,386	4,556	3,466	.628	.653	.680	.307	.318	.318	37.0	40.3	41.3
Designers and draftsmen.....	0.9	0.6	0.5	81.7	79.1	78.9	6,031	3,666	1,971	.507	.462	.567	.242	.237	.237	33.1	33.4	37.3
Engineers, civil.....	0.5	0.5	0.4	87.0	80.8	85.9	7,722	4,896	2,968	.463	.472	.582	.233	.256	.256	32.8	37.0	37.2
Engineers, electrical.....	0.6	0.4	0.3	90.0	83.4	89.7	8,753	5,147	3,313	.427	.476	.643	.212	.255	.255	31.6	37.3	39.8
Engineers, mechanical.....	1.2	0.8	0.4	90.1	81.8	87.2	8,745	5,333	3,409	.430	.453	.634	.213	.262	.262	32.4	38.5	41.2
Musicians and music teachers.....	0.2	0.2	0.3	42.7	42.3	39.1	4,888	3,466	1,500	.899	.821	.747	.379	.447	.447	41.0	49.0	52.0
Pharmacists.....	0.2	0.2	0.2	83.6	78.1	83.1	6,637	3,807	1,739	.504	.511	.479	.260	.245	.245	33.7	33.9	35.7
Social, welfare, and recreation workers.....	0.2	0.1	0.1	73.5	73.5	82.2	4,959	3,337	1,950	.662	.611	.542	.315	.320	.320	36.9	39.8	42.0
Sports instructors, athletes, entertainers...	0.2	0.2	0.1	50.9	46.2	40.1	5,287	3,232	1,641	.724	.779	.792	.352	.396	.396	39.4	43.4	48.6
Teachers (n.e.c.).....	1.8	1.1	1.3	49.3	48.7	29.9	5,530	3,413	1,818	.497	.564	.713	.239	.257	.257	32.8	33.9	41.8
SALARIED MANAGERS AND OFFICIALS																		
Conductors, railroad.....	0.2	0.2	0.2	74.5	69.9	74.7	7,113	4,265	2,500	.386	.331	.338	.159	.144	.144	28.3	26.8	30.8
Postmasters, and misc. government officials...	0.9	0.8	1.0	91.0	85.2	88.8	6,489	4,071	2,587	.464	.491	.570	.247	.287	.287	34.2	38.9	43.2
Managers and officials:																		
Manufacturing.....	2.6	1.5	1.4	90.9	87.7	92.7	12,151	7,672	4,352	.525	.609	.872	.386	.392	.392	49.2	48.7	41.3
Trans., commun., & other public utilities...	0.7	0.6	0.6	93.3	90.0	94.1	8,775	5,507	3,452	.437	.418	.654	.283	.290	.290	38.5	40.2	41.5
Wholesale trade.....	0.6	0.5	0.5	92.1	88.5	91.0	10,802	6,200	3,394	.517	.520	.819	.413	.403	.403	51.3	49.4	50.0
Eating and drinking places.....	0.2	0.2	0.2	76.5	75.4	79.3	5,549	3,271	1,669	.597	.617	.649	.337	.339	.339	40.8	40.1	46.8
Retail trade, exc. eating and drinking.....	1.5	1.4	2.0	89.5	86.6	89.3	6,946	4,730	2,180	.490	.501	.565	.319	.368	.368	40.9	45.0	47.6
Finance, insurance, and real estate.....	1.0	0.6	0.7	92.7	88.7	94.5	10,023	6,768	4,227	.534	.497	.721	.364	.379	.379	45.6	47.5	42.8
Business and repair services.....	0.3	0.2	0.1	88.3	85.3	88.6	9,364	5,429	2,396	.635	.523	.521	.366	.395	.395	45.6	48.4	48.6
Personal services.....	0.2	0.1	0.2	82.1	78.7	84.0	6,568	3,983	2,342	.623	.569	.626	.405	.387	.387	46.8	45.5	50.7
CLERICAL, SALES, AND KINDRED WORKERS																		
Baggage men, express mess., rwy. mail clerks...	-	0.1	0.1	83.0	82.2	88.2	5,219	3,476	2,127	.351	.334	.371	.165	.159	.159	28.4	26.8	27.8
Bookb'prs, acct's, cashiers, ticket agents...	2.3	2.2	2.3	81.9	80.8	84.8	5,605	3,679	1,946	.580	.504	.580	.290	.275	.275	36.0	37.1	41.4
Mail carriers.....	0.7	0.7	0.6	86.1	84.6	88.4	4,991	3,162	1,918	.299	.324	.380	.141	.154	.154	27.0	25.6	27.2
Messengers, except express.....	0.2	0.2	0.3	45.5	56.6	57.1	2,087	1,484	636	1.189	1.082	.751	.437	.406	.406	46.0	42.7	40.6
Shipping and receiving clerks.....	0.9	1.2	1.1	73.2	72.3	71.7	4,103	2,564	1,130	.530	.461	.562	.232	.220	.220	31.1	30.7	32.4
Stenographers, typists, and secretaries.....	0.3	0.3	0.4	77.4	79.6	79.4	5,315	3,924	1,757	.638	.567	.606	.370	.381	.381	43.0	46.3	46.2

— Less than 0.1. NA Not available.



Table C-6.—SELECTED ESTIMATES FOR MALE WAGE AND SALARY WORKERS, BY SELECTED OCCUPATIONS: 1959, 1949, AND 1939—Con.

Occupation	Percent distribution			Proportion of full- year workers			Mean income			Interquartile range			Gini ratio		Share of income received by top 20 percent		
	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1959	1949	1939
CLERICAL, SALES, & KINDRED WORKERS--Con.																	
Telegraph operators.....	0.1	0.1	0.2	82.6	76.9	79.0	\$5,221	\$3,254	\$1,777	.231	.285	.387	.133	.172	27.7	28.4	29.2
Newsboys.....	0.6	0.3	0.1	53.9	56.6	59.4	745	539	431	.722	.571	.745	.316	.492	47.6	62.8	55.1
Insurance agents and brokers.....	1.2	0.9	0.9	83.2	80.7	86.5	6,472	4,025	2,307	.500	.537	.650	.292	.299	37.8	38.9	43.9
Real estate agents and brokers.....	0.3	0.2	0.2	70.7	70.2	80.7	6,604	4,003	2,240	.768	.727	.680	.427	.400	47.8	46.8	51.8
Salesmen and sales clerks (n.e.c.).....	6.9	7.3	8.3	75.3	73.3	76.5	5,517	3,383	1,587	.716	.641	.709	.372	.364	42.4	43.6	46.3
CRAFTSMEN, FOREMEN, AND KINDRED WORKERS																	
Bakers.....	0.3	0.4	0.5	73.6	72.3	73.7	4,338	2,797	1,248	.541	.499	.580	.238	.232	31.5	30.9	34.8
Blacksmiths, forgemen, and hammermen.....	0.1	0.2	0.3	58.7	58.8	53.3	4,832	2,854	1,164	.511	.499	.786	.245	.243	32.2	31.5	36.8
Boilermakers.....	0.1	0.2	0.2	52.8	55.7	54.5	5,321	3,330	1,471	.440	.415	.585	.196	.193	29.9	29.4	32.6
Cabinetmakers and patternmakers.....	0.3	0.4	0.4	70.4	61.7	56.7	5,268	2,915	1,310	.555	.557	.676	.242	.246	33.0	32.8	35.1
Carpenters.....	2.6	3.2	2.7	40.6	40.0	28.3	4,232	2,512	1,034	.757	.740	.819	.295	.296	35.0	35.0	39.4
Compositors and typesetters.....	0.6	0.6	0.7	81.4	79.6	70.5	5,597	3,747	1,680	.478	.564	.698	.217	.241	30.5	32.7	36.3
Electricians.....	1.2	1.2	1.0	69.9	67.4	63.9	5,980	3,497	1,604	.433	.453	.617	.200	.213	30.1	31.0	34.6
Foremen (n.e.c.):																	
Construction.....	0.3	0.2	0.3	70.8	68.5	59.0	6,100	3,675	1,483	.504	.538	.646	.222	.239	32.0	33.4	36.8
Manufacturing.....	2.4	1.9	1.4	90.8	85.7	84.5	7,155	4,246	2,009	.423	.416	.495	.197	.197	31.0	31.1	34.5
Trans., commun., & other public utilities..	0.4	0.5	0.5	91.4	87.3	90.5	6,617	3,970	2,135	.379	.383	.443	.163	.169	28.8	29.6	33.8
Inspectors (n.e.c.).....	0.3	0.4	0.4	78.8	71.7	79.1	5,340	3,403	1,841	.340	.361	.408	.172	.175	29.1	29.0	30.7
Linenen and servicemen, telegraphers, etc....	1.0	0.9	0.5	90.8	85.4	85.0	5,803	3,351	1,936	.355	.463	.560	.156	.196	27.7	30.1	33.4
Locomotive engineers.....	0.2	0.3	0.4	72.9	68.4	72.3	7,495	4,640	2,639	.358	.351	.469	.161	.153	28.7	27.3	30.7
Locomotive firemen.....	0.1	0.2	0.2	60.8	56.9	52.8	5,876	3,568	1,674	.446	.433	.665	.192	.194	29.4	29.3	32.6
Machinists, millwrights, and toolmakers.....	2.8	3.1	3.2	74.8	70.3	62.8	5,715	3,297	1,470	.387	.371	.550	.179	.179	29.3	29.2	32.5
Masons, tile setters, and stone cutters.....	0.6	0.6	0.6	31.1	37.2	20.6	4,735	2,943	1,170	.661	.733	.779	.269	.295	33.3	35.2	38.8
Mechanics and repairmen, and loom fixers.....	7.4	6.7	4.1	75.5	72.3	68.1	4,684	2,843	1,244	.550	.488	.638	.245	.229	32.1	31.3	34.8
Molders, metal.....	0.2	0.2	0.4	63.2	56.9	43.0	4,705	2,742	1,151	.448	.434	.616	.204	.203	30.9	29.7	33.2
Painters (const.), paperhangers, glaziers.....	1.1	1.2	1.5	42.4	40.8	26.2	3,916	2,417	968	.821	.749	.806	.313	.297	36.0	35.2	39.2
Plasterers and cement finishers.....	0.3	0.3	0.3	30.2	35.8	18.4	4,663	2,946	1,073	.534	.747	.783	.285	.300	34.3	35.8	39.1
Plumbers and pipe fitters.....	1.0	1.0	0.8	61.5	61.6	52.0	5,596	3,371	1,410	.541	.567	.689	.230	.238	31.4	32.2	36.4
Printing craft., exc. compos. & typesetters..	0.4	0.4	0.3	82.4	80.6	70.3	6,330	4,383	2,062	.478	.558	.644	.216	.247	31.3	33.8	37.5
Rollers and roll hands, metal.....	0.1	0.1	0.1	38.3	34.4	39.0	5,464	3,316	1,558	.484	.379	.569	.230	.247	32.7	35.6	39.2
Roofers and sheet metal workers.....	0.6	0.6	0.5	59.2	56.9	45.5	4,983	2,926	1,249	.562	.555	.707	.234	.243	31.5	32.1	36.0
Shoemakers and repairers, exc. factory.....	0.1	0.1	0.1	66.4	66.1	71.4	2,808	1,989	875	.915	.803	.757	.360	.323	39.7	36.5	38.6
Stationary engineers, cranesmen, hoistmen....	2.2	1.8	1.6	67.5	67.6	67.5	5,747	3,476	1,556	.497	.442	.531	.247	.226	33.8	33.1	34.6
Structural metal workers.....	0.2	0.2	0.2	45.7	46.2	32.8	5,540	3,442	1,369	.470	.498	.726	.212	.221	30.9	31.8	37.2
Tailors and furriers.....	0.1	0.2	0.4	63.4	58.2	43.9	4,165	3,013	1,207	.539	.525	.659	.266	.262	33.9	34.9	38.3

Table C-6.—SELECTED ESTIMATES FOR MALE WAGE AND SALARY WORKERS, BY SELECTED OCCUPATIONS: 1959, 1949, AND 1939—Con.

Occupation	Percent distribution			Proportion of full-year workers			Mean income			Interquartile range			Gini ratio			Share of income received by top 20 percent		
	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1939
<b>OPERATIVES AND KINDRED WORKERS</b>																		
Apprentices.....	0.3	0.5	0.4	52.4	56.9	46.6	\$3,418	\$2,120	\$736	.795	.694	.859	.301	.287		35.3	34.1	37.3
Attendants, auto service and parking.....	1.2	0.9	1.0	49.2	58.5	64.2	2,389	1,827	776	1.114	.856	.812	.403	.334		42.7	37.7	36.6
Brakemen and switchmen, railroad.....	0.4	0.6	0.6	65.9	61.8	57.4	5,626	3,486	1,710	.381	.392	.581	.185	.175		29.4	28.1	30.2
Drivers, bus, taxi, & truck, & deliverymen.....	7.9	7.3	7.3	64.9	65.7	63.5	4,188	2,524	1,059	.756	.672	.798	.309	.285		36.5	34.7	38.0
Stationary firemen.....	0.3	0.5	0.6	75.0	71.6	66.9	4,670	2,710	1,147	.534	.495	.670	.226	.217		31.0	30.8	33.8
Mine operatives and laborers (n.e.c.).....	1.1	2.4	3.6	44.7	26.4	18.8	4,164	2,468	921	.716	.573	.730	.288	.264		34.8	34.2	36.9
Motormen, railway, mine, factory, etc.....	0.1	0.2	0.3	55.1	52.3	61.4	4,677	3,037	1,494	.433	.345	.467	.191	.163		29.4	28.2	29.2
Painters, exc. construction and maintenance..	0.5	0.4	0.4	62.7	62.2	49.1	4,164	2,680	1,066	.621	.520	.658	.259	.235		32.9	31.6	33.9
Sailors and deck hands.....	0.1	0.2	0.2	35.8	33.2	34.7	4,400	2,379	904	.701	.712	.689	.292	.304		35.7	35.5	40.0
Welders and flame-cutters.....	1.3	1.0	0.6	60.5	57.8	50.6	4,959	3,069	1,351	.462	.429	.599	.209	.207		30.4	30.3	32.6
<b>Operatives and kindred workers (n.e.c.):</b>																		
Food and kindred products.....	1.8	1.3	1.1	63.4	66.1	64.7	3,793	2,491	1,119	.788	.604	.656	.306	.255		34.6	32.7	35.4
Knitting mills.....	0.1	0.2	0.3	58.5	57.3	37.5	3,641	2,792	1,046	.588	.720	.726	.256	.303		33.9	36.9	37.4
Textile mill products, exc. knitting mills.....	0.8	1.5	1.9	70.4	61.8	44.0	3,350	2,243	782	.479	.497	.538	.224	.234		31.7	31.8	34.3
Apparel and other fabric textile products.....	0.5	0.7	0.7	51.2	43.1	29.8	3,879	2,780	1,068	.672	.632	.710	.289	.295		35.6	36.8	38.9
Furniture, and lumber and wood products....	0.7	1.1	0.8	58.0	52.3	47.2	3,291	1,906	852	.747	.834	.718	.300	.317		35.9	36.5	35.8
Paper, paper products, and printing.....	0.9	0.9	0.7	75.1	71.1	60.8	4,742	2,775	1,160	.487	.483	.534	.220	.236		31.0	31.5	34.6
Chemicals and petroleum, and coal products..	0.8	0.8	0.6	81.9	75.9	71.8	5,395	3,053	1,345	.429	.469	.548	.189	.214		29.3	30.1	31.8
Rubber products.....	0.4	0.4	0.3	64.7	67.0	55.8	4,845	2,942	1,289	.493	.382	.590	.216	.182		30.4	28.8	32.6
Footwear industries, exc. rubber.....	0.2	0.4	0.6	59.0	53.0	31.4	3,348	2,185	847	.605	.568	.623	.253	.245		32.8	32.5	33.7
Leather & leather products, exc. footwear....	0.1	0.2	0.2	60.1	56.9	46.8	3,728	2,399	1,015	.560	.578	.620	.248	.241		33.3	31.0	34.0
Stone, clay, and glass products.....	0.5	0.6	0.5	64.3	62.7	45.9	4,519	2,684	1,114	.551	.480	.599	.235	.231		32.6	32.2	34.3
Metal industries.....	1.6	1.9	1.7	56.1	51.2	47.9	4,620	2,690	1,148	.480	.448	.598	.214	.216		31.3	31.1	34.0
Machinery.....	3.7	1.9	1.0	64.2	63.2	52.5	4,679	2,797	1,177	.483	.442	.619	.219	.211		30.8	30.6	34.4
Motor vehicles & motor vehicle equipment...	0.6	1.2	1.0	43.2	45.7	21.5	4,848	2,876	1,227	.380	.369	.510	.199	.190		29.9	28.6	30.7
Trans. equipment, exc. motor vehicle.....	0.4	0.4	0.3	67.4	64.9	49.7	4,778	2,910	1,112	.456	.404	.727	.216	.198		30.4	29.7	35.9
<b>SERVICE WORKERS</b>																		
Private household workers.....	0.2	0.3	0.7	48.1	57.5	64.5	1,585	1,289	538	1.165	.988	.875	.445	.397		49.0	42.6	43.0
Firemen, fire protection.....	0.5	0.5	0.4	93.7	90.6	94.5	5,513	3,295	2,198	.351	.306	.333	.153	.146		28.4	28.1	31.9
Guards and watchmen.....	0.9	1.0	1.1	72.8	23.8	75.3	3,885	2,462	1,065	.703	.538	.618	.278	.237		33.8	31.5	33.9
Police, sheriffs, and marshals.....	1.0	0.9	0.9	90.0	86.2	90.2	5,177	3,145	2,069	.365	.367	.462	.175	.180		29.0	29.3	34.5
Barbers, beauticians, and manicurists.....	0.4	0.4	0.5	65.3	68.2	79.3	3,658	2,244	997	.747	.658	.619	.324	.289		37.4	36.2	35.7
Charmen, janitors and porters.....	2.6	2.5	2.5	64.5	68.0	74.2	2,768	1,842	847	.896	.694	.802	.335	.286		37.1	34.9	36.6
Cooks, exc. private household.....	0.7	0.8	0.9	60.8	58.9	60.7	3,460	2,299	899	.797	.706	.756	.322	.294		37.2	36.0	38.2
Elevator operators.....	0.2	0.3	0.3	72.4	72.8	78.6	3,284	2,112	995	.613	.515	.576	.249	.215		32.1	30.1	31.1
Waiters, bartenders, and counter workers....	1.0	1.3	1.4	51.5	57.0	60.3	2,835	2,040	851	1.001	.815	.783	.375	.316		40.1	36.4	37.6
Service wkrs., exc. priv. household (n.e.c.)..	0.8	0.8	0.7	40.0	47.9	60.4	1,803	1,406	616	1.126	.932	.761	.414	.365		45.3	40.6	36.6



Table C-6.—SELECTED ESTIMATES FOR MALE WAGE AND SALARY WORKERS, BY SELECTED OCCUPATIONS: 1959, 1949, AND 1939—Con.

Occupation	Percent distribution			Proportion of full-year workers			Mean income			Interquartile range			Gini ratio		Share of income received by top 20 percent		
	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1959	1949	1939
LABORERS, EXCEPT FARM AND MINE																	
Fishermen and oystermen.....	0.1	0.1	0.1	30.4	29.4	26.5	\$3,101	\$2,295	\$710	1.026	.935	.865	.424	.408	45.6	45.5	46.0
Longshoremen and stevedores.....	0.2	0.3	0.3	42.5	37.7	28.4	4,668	2,488	1,006	.675	.693	.807	.275	.280	33.8	33.5	39.1
Lumbermen, raftsmen, and woodchoppers.....	0.4	0.6	0.7	27.3	29.4	21.6	2,333	1,457	550	1.007	.923	.798	.462	.426	50.6	46.7	43.3
Laborers (n.e.c.):																	
Manufacturing industries:																	
Food and kindred products.....	0.4	0.6	0.8	55.5	58.1	51.8	3,343	2,128	853	.916	.714	.849	.334	.276	36.8	33.2	35.7
Textiles, textile products, and apparel.....	0.1	0.3	0.4	61.2	59.1	44.8	2,619	1,913	675	.634	.545	.616	.269	.255	33.9	33.8	34.2
Furniture, and lumber and wood products.....	0.4	0.7	1.3	45.3	46.0	38.9	2,649	1,585	573	.922	.850	.731	.358	.351	40.4	39.9	38.9
Paper, paper products, and printing.....	0.2	0.2	0.3	65.0	64.5	54.5	3,783	2,325	871	.652	.527	.660	.267	.241	32.6	32.5	33.0
Chemicals & petroleum, & coal products.....	0.2	0.4	0.6	66.6	66.9	55.5	4,107	2,444	912	.613	.623	.884	.250	.248	31.6	31.5	35.8
Stone, clay, and glass products.....	0.3	0.3	0.5	51.9	57.5	40.1	3,663	2,213	815	.664	.574	.706	.269	.240	33.7	32.2	33.9
Metal industries.....	0.8	1.1	1.7	36.2	39.3	39.1	3,901	2,330	935	.526	.464	.773	.233	.213	31.0	31.3	33.4
Machinery.....	0.2	0.3	0.3	55.1	54.7	47.4	3,755	2,318	943	.616	.539	.697	.257	.240	32.3	31.2	33.5
Motor vehicles & motor vehicle equipment.....	0.1	0.2	0.3	39.4	45.2	23.3	4,186	2,621	1,074	.563	.460	.678	.241	.207	31.2	29.6	32.5
Trans. equipment, exc. motor vehicle.....	0.1	0.1	0.2	50.5	59.3	44.0	3,621	2,262	866	.687	.520	.803	.265	.238	32.6	31.2	34.8
Nonmanufacturing industries:																	
Construction.....	2.6	2.8	3.2	33.8	36.9	24.7	3,015	1,838	635	.922	.823	.811	.356	.333	39.3	38.7	40.6
Railroads and railway express service.....	0.5	1.1	1.2	62.0	59.2	55.2	3,742	2,160	827	.490	.533	.620	.219	.231	30.4	30.1	33.5
Transportation, exc. railroad.....	0.4	0.4	0.4	51.9	54.4	48.9	3,402	2,128	811	.984	.803	.965	.350	.306	37.6	35.1	38.7
Telecommun. & utilities & sanitary serv.....	0.4	0.5	0.5	71.0	67.8	65.5	3,445	2,115	1,038	.716	.652	.766	.286	.261	34.9	32.5	34.7
Wholesale and retail trade.....	1.5	1.2	1.0	48.1	54.8	52.9	2,537	1,762	729	1.320	.938	.853	.432	.352	43.7	37.8	38.7

Source: 1959 data derived from tables C-1, C-2, C-3, and C-4. 1949 and 1939 data based on figures in Herman P. Miller, *Income of the American People*, Wiley, 1955, appendix C.

Table C-7.—SELECTED ESTIMATES FOR MALE WAGE AND SALARY WORKERS WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1959, 1949, AND 1939

Occupation	Percent distribution			Mean income			Interquartile range			Gini ratio		Share of income received by top 20 percent		
	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1959	1949	1939
Total experienced civilian labor force....	100.0	100.0	100.0	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
PROFESSIONAL, TECHNICAL, KINDRED WORKERS														
Artists and art teachers.....	0.2	0.2	0.1	\$7,426	\$5,151	\$2,657	.457	.469	.627	.267	.339	36.6	43.2	45.3
Authors, editors, and reporters.....	0.4	0.3	0.3	8,360	6,113	3,187	.471	.512	.723	.277	.329	37.5	44.3	45.4
Chemists.....	0.3	0.4	0.4	7,978	5,026	2,785	.411	.458	.544	.207	.241	32.4	37.4	41.3
Clergymen.....	0.7	0.6	0.8	4,159	2,607	1,551	.666	.718	.649	.292	.307	36.0	37.5	42.7
College pres., professors, instr's (n.e.c.)..	0.4	0.3	0.2	8,482	5,264	3,980	.497	.486	.589	.264	.272	35.7	38.7	41.8
Designers and draftsmen.....	1.1	0.7	0.6	6,568	3,977	2,179	.403	.371	.456	.196	.193	31.0	31.7	35.3
Engineers, civil.....	0.7	0.6	0.6	8,178	5,247	3,179	.410	.402	.547	.201	.221	31.6	35.5	36.3
Engineers, electrical.....	0.8	0.5	0.4	9,163	5,472	3,496	.382	.420	.600	.187	.218	30.6	35.8	38.7
Engineers, mechanical.....	1.6	1.0	0.6	9,093	5,748	3,665	.395	.411	.588	.196	.228	31.4	37.4	40.1
Musicians and music teachers.....	0.2	0.2	2.0	5,807	4,238	2,024	.612	.663	.627	.310	.421	37.9	47.7	50.7
Pharmacists.....	0.2	0.2	0.3	7,096	4,150	1,886	.419	.421	.422	.225	.210	32.4	31.9	34.1
Social, welfare, and recreation workers.....	0.2	0.2	0.2	5,850	3,823	2,143	.414	.469	.469	.223	.249	32.9	36.6	41.4
Sports instructors, athletes, entertainers....	0.2	0.2	0.1	6,097	4,019	2,016	.474	.496	.549	.273	.322	36.1	40.3	47.4
Teachers (n.e.c.).....	1.3	0.9	0.6	6,157	3,901	2,399	.437	.433	.580	.210	.215	31.9	32.3	40.7
SALARIED MANAGERS AND OFFICIALS														
Conductors, railroad.....	0.2	0.2	0.3	7,446	4,467	2,632	.333	.304	.304	.140	.127	27.7	26.0	30.4
Postmasters, and misc. government officials..	1.2	1.1	1.5	6,730	4,281	2,737	.231	.432	.523	.225	.259	33.3	37.7	41.7
Managers and officials:														
Manufacturing.....	3.5	2.0	2.2	12,547	7,847	4,493	.512	.581	.882	.372	.378	48.6	48.3	40.0
Trans., commun., & other public utilities..	1.0	0.8	0.9	8,949	5,572	3,528	.423	.404	.636	.272	.275	38.2	39.8	41.3
Wholesale trade.....	0.9	0.7	0.8	11,120	6,389	3,554	.501	.503	.795	.399	.383	50.7	48.4	49.1
Eating and drinking places.....	0.2	0.2	0.3	6,195	3,705	1,859	.507	.487	.567	.304	.272	39.4	37.3	45.3
Retail trade, exc. eating and drinking.....	2.0	1.8	2.9	7,264	4,923	2,296	.455	.470	.520	.305	.349	40.4	44.2	46.8
Finance, insurance, and real estate.....	1.4	0.8	1.1	10,215	6,743	4,279	.515	.488	.721	.351	.372	45.0	46.5	42.0
Business and repair services.....	0.3	0.2	0.2	9,869	5,644	2,538	.619	.488	.510	.351	.376	44.7	47.2	47.8
Personal services.....	0.2	0.2	0.2	7,306	4,389	2,541	.517	.504	.589	.373	.344	45.8	43.3	49.3
CLERICAL, SALES, AND KINDRED WORKERS														
Baggage men, express mess., rvy. mail clerks..	0.1	0.1	0.2	5,461	3,662	2,211	.314	.285	.305	.143	.125	27.4	25.9	26.8
Bookkeepers, acct's., cashiers, ticket agents...	2.8	2.8	3.2	6,237	4,008	2,130	.460	.415	.501	.239	.230	33.9	35.6	40.2
Mail carriers.....	0.9	0.9	0.9	5,266	3,281	2,002	.199	.277	.305	.101	.122	26.1	24.5	26.0
Messengers, except express.....	0.1	0.3	0.3	3,153	1,979	833	.634	.199	.567	.294	.292	36.1	35.4	35.6
Shipping and receiving clerks.....	1.0	1.3	1.3	4,562	2,844	1,300	.419	.359	.396	.172	.163	29.0	28.7	30.6
Stenographers, typists, and secretaries.....	0.3	0.4	0.5	6,054	4,359	2,004	.504	.493	.505	.310	.332	40.4	44.4	44.4

NA Not available.



Table C-7.—SELECTED ESTIMATES FOR MALE WAGE AND SALARY WORKERS WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1959, 1949, AND 1939—Con.

Occupation	Percent distribution			Mean income			Interquartile range			Gini ratio		Share of income received by top 20 percent		
	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1959	1949	1939
<b>CLERICAL, SALES, &amp; KINDRED WORKERS—Con.</b>														
Telegraph operators.....	0.1	0.1	0.2	\$5,506	\$3,479	\$1,920	.158	.212	.308	.100	.118	27.3	26.6	27.8
Newsboys.....	0.4	0.3	0.1	863	652	532	.640	.505	.938	.400	.537	54.7	66.3	53.7
Insurance agents and brokers.....	1.4	1.1	1.3	6,860	4,331	2,487	.429	.451	.582	.256	.264	36.1	37.4	42.4
Real estate agents and brokers.....	0.3	0.2	0.3	7,468	4,638	2,485	.667	.631	.631	.390	.359	45.7	44.6	50.2
Salesmen and sales clerks (n.e.c.).....	7.7	8.3	10.6	6,347	3,860	1,833	.549	.519	.601	.310	.311	39.2	41.2	44.0
<b>CRAFTSMEN, FOREMEN, AND KINDRED WORKERS</b>														
Bakers.....	0.3	0.4	0.7	4,796	3,060	1,404	.399	.412	.429	.179	.182	29.7	29.0	32.2
Blacksmiths, forgemen, and hammermen.....	0.1	0.2	0.2	5,522	3,194	1,384	.379	.399	.582	.188	.190	30.3	30.0	33.2
Boilermakers.....	0.1	0.1	0.1	5,917	3,655	1,776	.311	.301	.360	.150	.151	27.8	27.8	28.8
Cabinetmakers and patternmakers.....	0.3	0.4	0.4	5,756	3,267	1,558	.438	.418	.521	.198	.195	30.8	30.5	32.8
Carpenters.....	1.6	2.0	1.3	5,199	3,125	1,448	.509	.494	.567	.222	.214	31.6	31.6	34.8
Compositors and typesetters.....	0.7	0.8	0.8	5,971	3,970	1,885	.385	.493	.588	.175	.206	29.1	31.0	34.5
Electricians.....	1.2	1.3	1.0	6,388	3,769	1,860	.367	.371	.461	.167	.175	29.1	29.7	32.1
Foremen (n.e.c.):														
Construction.....	0.4	0.3	0.3	6,499	3,927	1,747	.453	.490	.478	.200	.215	31.0	32.8	33.5
Manufacturing.....	3.3	2.6	1.9	7,330	4,391	2,136	.402	.393	.447	.186	.183	30.7	30.8	33.4
Trans., commun., & other public utilities.....	0.6	0.7	0.7	6,749	4,048	2,199	.362	.374	.427	.155	.161	28.4	29.3	33.4
Inspectors (n.e.c.).....	0.4	0.4	0.5	5,674	3,633	2,003	.279	.303	.332	.144	.145	28.2	28.0	29.7
Linemen and servicemen, telegraphers, etc.....	1.3	1.2	0.8	5,991	3,479	2,094	.313	.422	.468	.138	.174	27.0	29.1	31.6
Locomotive engineers.....	0.2	0.3	0.4	7,883	4,904	2,824	.304	.306	.461	.143	.135	27.5	27.1	29.1
Locomotive firemen.....	0.1	0.2	0.2	6,637	4,034	2,027	.323	.324	.400	.140	.149	27.5	27.4	28.9
Machinists, millwrights, and toolmakers.....	3.1	3.4	3.3	6,096	3,553	1,690	.313	.290	.408	.152	.141	28.1	27.8	30.1
Masons, tile setters, and stone cutters.....	0.3	0.4	0.2	5,642	3,478	1,616	.504	.568	.619	.220	.238	31.3	32.7	35.7
Mechanics and repairmen, and loom fixers.....	8.2	7.5	4.7	5,140	3,120	1,426	.435	.397	.481	.197	.180	30.1	29.9	31.8
Molders, metal.....	0.2	0.2	0.3	5,247	3,087	1,443	.343	.310	.404	.159	.152	28.5	27.9	30.1
Painters (const.), paperhangers, glaziers.....	0.7	0.8	0.6	4,988	3,084	1,403	.479	.444	.522	.212	.197	30.9	30.8	33.7
Plasterers and cement finishers.....	0.1	0.2	0.1	5,682	3,574	1,430	.531	.578	.635	.219	.236	30.9	32.7	36.4
Plumbers and pipe fitters.....	0.9	1.0	0.7	6,140	3,682	1,691	.444	.453	.454	.185	.202	29.9	30.5	32.8
Printing craft., exc. compos. & typesetters.....	0.5	0.5	0.4	6,637	4,620	2,317	.419	.515	.565	.193	.221	30.3	32.9	36.3
Rollers and roll hands, metal.....	0.1	0.1	0.1	6,348	3,809	1,948	.392	.311	.443	.207	.250	32.3	37.4	37.4
Roofers and sheet metal workers.....	0.6	0.6	0.4	5,666	3,370	1,583	.392	.392	.497	.175	.181	29.1	29.4	32.8
Shoemakers and repairers, exc. factory.....	0.1	0.1	0.1	3,247	2,309	994	.660	.577	.622	.283	.257	35.2	33.5	36.0
Stationary engineers, cranimen, hoistmen.....	2.1	1.9	1.8	6,318	3,782	1,768	.451	.381	.382	.228	.209	33.2	33.1	32.1
Structural metal workers.....	0.2	0.2	0.1	6,312	3,845	1,759	.364	.390	.478	.167	.172	29.3	29.5	33.3
Tailors and furriers.....	0.1	0.2	0.3	4,740	3,351	1,518	.422	.432	.502	.215	.218	32.3	33.2	36.7

Table C-7.—SELECTED ESTIMATES FOR MALE WAGE AND SALARY WORKERS WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1959, 1949, AND 1939—Con.

Occupation	Percent distribution			Mean income			Interquartile range			Gini ratio		Share of income received by top 20 percent		
	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1959	1949	1939
<b>OPERATIVES AND KINDRED WORKERS</b>														
Apprentices.....	0.2	0.4	0.3	\$4,256	\$2,535	\$962	.438	.433	.531	.194	.202	29.8	31.0	31.7
Attendants, auto service and parking.....	0.9	0.8	1.1	3,291	2,245	940	.643	.555	.581	.275	.243	34.7	32.6	32.6
Brakemen and switchmen, railroad.....	0.4	0.6	0.6	6,199	3,833	2,003	.293	.295	.357	.136	.135	27.6	26.7	27.3
Drivers, bus, taxi, & truck, & deliverymen...	7.6	7.5	7.7	4,830	2,881	1,068	.540	.482	.609	.235	.223	32.5	31.8	34.1
Stationary firemen.....	0.4	0.6	0.7	5,070	2,931	1,338	.424	.405	.450	.187	.180	29.2	28.8	30.9
Mine operatives and laborers (n.e.c.).....	0.7	1.0	1.1	5,259	3,202	1,360	.423	.492	.564	.196	.223	30.1	32.4	32.7
Motormen, railway, mine, factory, etc.....	0.1	0.2	0.3	5,295	3,427	1,743	.252	.230	.271	.134	.109	26.7	25.9	26.9
Painters, exc. construction and maintenance...	0.4	0.4	0.4	4,770	3,062	1,283	.459	.373	.441	.195	.176	30.0	29.6	30.9
Sailors and deck hands.....	0.1	0.1	0.1	5,475	3,063	1,241	.514	.452	.541	.231	.228	32.7	32.8	35.8
Welders and flame-cutters.....	1.1	0.9	0.5	5,527	3,454	1,633	.364	.311	.412	.162	.155	28.6	28.8	30.1
<b>Operatives and kindred workers (n.e.c.):</b>														
Food and kindred products.....	1.7	1.3	1.2	4,588	2,834	1,323	.483	.414	.419	.210	.190	30.8	29.9	32.2
Knitting mills.....	0.1	0.2	0.2	4,162	3,337	1,278	.415	.592	.621	.195	.238	31.3	34.1	34.8
Textile mill products, exc. knitting mills.	0.9	1.5	1.4	3,720	2,577	949	.385	.348	.421	.171	.170	29.9	29.8	32.0
Apparel and other fabric textile products...	0.4	0.5	0.4	4,480	3,191	1,377	.547	.527	.576	.232	.253	33.7	35.6	32.7
Furniture, and lumber and wood products....	0.6	0.9	0.6	3,968	2,301	1,056	.541	.628	.541	.221	.250	31.6	32.1	32.1
Paper, paper products, and printing.....	1.0	1.0	0.7	5,226	3,098	1,350	.459	.375	.382	.170	.176	28.9	29.5	32.0
Chemicals and petroleum, and coal products.	0.9	1.0	0.7	5,805	3,353	1,540	.340	.364	.396	.150	.167	28.1	28.4	29.0
Rubber products.....	0.4	0.4	0.3	5,303	3,224	1,509	.394	.314	.423	.162	.144	28.5	27.3	29.3
Footwear industries, exc. rubber.....	0.2	0.3	0.3	3,908	2,581	1,106	.434	.407	.439	.180	.176	30.5	30.0	31.1
Leather & leather products, exc. footwear...	0.1	0.2	0.2	4,252	2,831	1,262	.415	.379	.361	.172	.168	29.3	28.6	30.6
Stone, clay, and glass products.....	0.5	0.5	0.4	5,086	2,986	1,355	.381	.396	.390	.177	.184	29.6	30.1	31.5
Metal industries.....	1.4	1.5	1.4	5,152	3,034	1,403	.353	.322	.358	.158	.160	27.9	28.7	30.6
Machinery.....	3.5	1.8	0.9	5,315	3,180	1,447	.348	.300	.390	.157	.145	28.4	27.9	29.8
Motor vehicles & motor vehicle equipment...	0.4	0.9	0.3	5,691	3,311	1,555	.300	.252	.361	.145	.131	28.1	26.8	28.3
Trans. equipment, exc. motor vehicle.....	0.4	0.4	0.2	5,489	3,301	1,476	.312	.292	.389	.146	.130	27.8	27.7	30.7
<b>SERVICE WORKERS</b>														
Private household workers.....	0.1	0.2	0.7	2,260	1,603	628	.920	.733	.785	.370	.322	41.0	38.3	40.0
Firemen, fire protection.....	0.7	0.6	0.6	5,620	3,343	2,220	.336	.287	.321	.144	.135	28.1	27.4	31.5
Guards and watchmen.....	1.0	1.2	1.4	4,464	2,709	1,198	.506	.414	.472	.205	.188	30.9	29.0	31.5
Policemen, sheriffs, and marshals.....	1.3	1.2	1.3	5,352	3,283	2,154	.340	.322	.403	.153	.154	28.4	28.5	33.3
Barbers, beauticians, and manicurists.....	0.4	0.4	0.6	4,258	2,542	1,092	.533	.489	.526	.259	.231	34.4	32.9	34.1
Charmen, janitors, and porters.....	2.4	2.7	3.2	3,288	2,072	950	.614	.500	.663	.255	.229	32.9	32.0	33.9
Cooks, exc. private household.....	0.6	0.7	0.9	4,077	2,691	1,064	.575	.491	.614	.248	.226	33.3	32.4	35.6
Elevator operators.....	0.2	0.3	0.4	3,679	2,336	1,096	.421	.371	.443	.190	.160	29.6	28.1	28.8
Waiters, bartenders, and counter workers....	0.7	1.1	1.4	3,671	2,462	1,015	.612	.526	.608	.267	.232	35.0	31.6	33.5
Service wks., exc. priv. household (n.e.c.)...	0.5	0.6	0.7	2,605	1,824	741	.708	.595	.591	.293	.265	35.8	33.7	33.8



Table C-7.—SELECTED ESTIMATES FOR MALE WAGE AND SALARY WORKERS WHO WORKED 50 TO 52 WEEKS IN 1959, BY SELECTED OCCUPATIONS: 1959, 1949, AND 1939—Con.

Occupation	Percent distribution			Mean income			Interquartile range			Gini ratio			Share of income received by top 20 percent		
	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1939	1959	1949	1939
<b>LABORERS, EXCEPT FARM AND MINE</b>															
Fishermen and oystermen.....	0.1	0.1	0.1	\$3,870	\$2,658	\$921	.837	.815	.879	.369	.351		41.9	41.1	45.4
Longshoremen and stevedores.....	0.1	0.2	0.2	5,628	2,966	1,361	.457	.472	.589	.197	.220		30.1	31.0	34.7
Lumbermen, raftsmen, and woodchoppers.....	0.1	0.3	0.2	2,983	1,640	657	.870	.784	.670	.385	.377		43.8	43.1	42.5
<b>Manufacturing industries:</b>															
Food and kindred products.....	0.4	0.5	0.7	4,245	2,549	1,097	.542	.437	.487	.219	.189		30.9	28.9	30.2
Textiles, textile products, and apparel..	0.1	0.2	0.3	3,116	2,235	852	.431	.380	.453	.177	.189		30.8	30.9	31.0
Furniture, and lumber and wood products..	0.3	0.5	0.9	3,474	1,902	736	.651	.634	.548	.267	.278		34.6	35.2	35.7
Paper, paper products, and printing.....	0.2	0.2	0.3	4,468	2,616	1,073	.410	.365	.399	.179	.172		29.0	28.7	29.0
Chemicals & petroleum, & coal products...	0.2	0.4	0.5	4,756	2,793	1,169	.390	.422	.507	.174	.181		28.8	28.7	29.9
Stone, clay, and glass products.....	0.2	0.3	0.3	4,337	2,575	1,030	.474	.365	.482	.204	.170		30.4	28.7	30.0
Metal industries.....	0.4	0.9	1.1	4,595	2,663	1,213	.414	.343	.327	.172	.152		28.8	28.0	28.9
Machinery.....	0.2	0.3	0.3	4,471	2,768	1,202	.393	.347	.362	.169	.157		28.6	28.5	28.9
Motor vehicles & motor vehicle equipment.	0.1	0.1	0.1	5,126	3,063	1,393	.323	.278	.393	.149	.141		27.6	26.9	28.1
Trans. equipment, exc. motor vehicle.....	0.1	0.1	0.1	4,485	2,671	1,164	.357	.300	.384	.161	.154		27.9	28.7	28.7
<b>Nonmanufacturing industries:</b>															
Construction.....	1.3	1.6	1.3	3,971	2,372	929	.565	.551	.648	.250	.246		33.8	33.5	34.1
Railroads and railway express service....	0.4	1.1	1.1	4,325	2,509	1,005	.263	.320	.413	.129	.151		28.2	27.6	30.1
Transportation, exc. railroad.....	0.3	0.4	0.4	4,375	2,636	1,080	.552	.446	.631	.231	.199		31.5	29.7	32.1
Telecommun. & utilities & sanitary serv..	0.4	0.5	0.5	3,952	2,409	1,243	.526	.453	.502	.218	.189		31.2	29.3	30.5
Wholesale and retail trade.....	1.1	1.0	0.9	3,692	2,235	925	.721	.587	.637	.282	.244		33.3	32.4	33.9

— Represents zero.

Source: 1959 data derived from tables C-1, C-2, C-3, and C-4. 1949 and 1939 data based on figures in Herman P. Miller, *Income of the American People*, Wiley, 1955, appendix C.





*APPENDIX D*

STATISTICAL TABLES FOR  
WAGE AND SALARY TRENDS  
BY SKILLS FOR SELECTED  
MANUFACTURING INDUSTRIES,  
1939 TO 1959

Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939

[See chapter V for sources and limitations of the data. Minus sign (—) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	1959	1949	1939	1959	1949	1939	1959	1949	La-borers	Opera-tives	Other workers	La-borers	Opera-tives
ALABAMA:													
Furniture, and lumber and wood products.....	\$1,602	\$1,008	\$388	\$1,860	\$1,096	\$474	\$3,353	\$1,975	59	70	70	160	131
Stone, clay, and glass products.....	2,636	1,689	524	3,318	2,316	757	4,633	3,093	56	62	50	122	170
Primary and fabricated metal industries.....	3,565	2,032	701	4,301	2,316	887	5,864	3,073	75	86	91	190	161
Primary metal industries.....	3,611	2,052	(NA)	4,465	2,337	(NA)	5,691	3,080	76	91	85	(NA)	(NA)
Fabricated metal industries.....	3,208	1,697	(NA)	3,827	2,085	(NA)	6,319	2,988	89	84	111	(NA)	(NA)
Transportation equipment.....	2,617	1,388	457	3,217	1,849	559	4,985	2,589	89	74	93	204	231
Food and kindred products.....	1,879	1,311	439	2,416	1,637	675	4,925	2,893	43	48	70	199	143
Textile mill products and apparel.....	2,441	1,777	526	2,855	2,079	653	3,921	2,764	37	37	42	238	218
Chemicals and allied products.....	2,616	1,743	(NA)	4,482	2,091	(NA)	5,768	3,506	91	114	65	(NA)	(NA)
Trans., commun., and other public utilities.....	2,470	1,746	591	3,695	2,437	(NA)	5,716	3,360	41	52	70	195	(NA)
Wholesale and retail trade.....	1,123	1,159	417	2,215	1,513	(NA)	3,691	2,357	-3	46	57	178	(NA)
ARIZONA:													
Furniture, and lumber and wood products.....	2,944	1,794	693	4,058	2,304	776	5,419	3,275	64	76	65	159	197
Primary and fabricated metal industries.....	3,879	2,663	966	4,857	3,107	1,213	6,434	3,488	46	56	84	176	156
Primary metal industries.....	3,817	2,720	(NA)	4,830	3,047	(NA)	6,093	3,557	40	59	71	(NA)	(NA)
Trans., commun., and other public utilities.....	3,466	2,056	810	4,536	2,852	(NA)	6,225	3,717	69	59	67	154	(NA)
Wholesale and retail trade.....	896	1,775	648	3,098	1,865	(NA)	4,814	2,980	-50	66	62	174	(NA)
ARKANSAS:													
Furniture, and lumber and wood products.....	1,941	1,178	450	2,325	1,316	546	3,202	2,135	65	77	50	162	141
Stone, clay, and glass products.....	2,640	1,650	613	3,411	2,063	897	4,382	2,859	60	65	53	169	130
Food and kindred products.....	1,802	1,328	417	2,482	1,604	629	4,405	2,830	36	55	56	218	155
Chemicals and allied products.....	3,348	1,602	(NA)	5,380	2,067	(NA)	6,133	3,021	109	160	103	(NA)	(NA)
Trans., commun., and other public utilities.....	2,758	1,704	576	4,100	2,402	(NA)	5,178	3,117	62	71	66	196	(NA)
Wholesale and retail trade.....	1,169	1,182	447	2,215	1,504	(NA)	3,524	2,351	-1	47	50	164	(NA)
CALIFORNIA:													
Furniture, and lumber and wood products.....	4,035	2,543	964	4,541	2,722	1,120	5,687	3,483	59	67	63	164	143
Stone, clay, and glass products.....	4,298	2,497	1,008	5,099	2,929	1,272	6,416	3,321	72	74	93	148	130
Primary and fabricated metal industries.....	4,136	2,411	1,056	5,002	2,814	1,231	6,866	3,639	72	78	89	128	129
Primary metal industries.....	4,125	2,406	(NA)	4,814	2,857	(NA)	6,171	3,521	71	68	75	(NA)	(NA)
Fabricated metal industries.....	4,157	2,420	(NA)	5,096	2,784	(NA)	7,018	3,719	72	83	89	(NA)	(NA)
Machinery, including electrical.....	3,796	2,375	972	4,979	2,850	1,224	6,769	3,659	60	75	85	144	133
Transportation equipment.....	4,253	2,612	1,011	5,391	3,098	1,123	6,683	3,671	63	74	82	158	176
Food and kindred products.....	3,308	2,272	769	4,864	2,814	1,222	6,601	3,870	46	73	71	195	130
Chemicals and allied products.....	4,200	2,647	(NA)	5,470	3,248	(NA)	6,735	3,976	59	68	69	(NA)	(NA)
Trans., commun., and other public utilities.....	4,225	2,509	1,016	5,106	3,144	(NA)	6,683	3,895	68	62	72	147	(NA)
Wholesale and retail trade.....	1,362	2,302	898	4,420	2,611	(NA)	5,465	3,389	-41	69	61	156	(NA)

NA Not available.



Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939—Con.

[See chapter V for sources and limitations of the data. Minus sign (—) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	1959	1949	1939	1959	1949	1939	1959	1949	La-borers	Opera-tives	Other workers	La-borers	Opera-tives
CONNECTICUT:													
Primary and fabricated metal industries.....	\$4,286	\$2,336	\$979	\$4,798	\$2,643	\$1,069	\$5,893	\$3,220	83	82	83	139	147
Primary metal industries.....	4,525	2,429	(NA)	5,087	2,629	(NA)	6,023	3,207	86	93	88	(NA)	(NA)
Fabricated metal industries.....	4,029	2,252	(NA)	4,646	2,653	(NA)	5,831	3,230	79	75	81	(NA)	(NA)
Machinery, including electrical.....	3,956	2,262	973	4,807	2,704	1,129	6,078	3,299	75	78	84	132	140
Textile mill products and apparel.....	2,986	2,274	708	3,854	2,576	866	5,223	3,314	31	50	58	221	197
Chemicals and allied products.....	4,500	2,345	(NA)	5,503	2,784	(NA)	6,900	3,569	92	98	93	(NA)	(NA)
Trans., commun., and other public utilities...	4,178	2,384	965	5,050	2,894	(NA)	6,368	3,647	75	74	75	147	(NA)
Wholesale and retail trade.....	1,252	1,952	801	3,726	2,298	(NA)	5,077	2,974	-36	62	71	144	(NA)
COLORADO:													
Primary and fabricated metal industries.....	3,807	2,397	1,029	4,711	2,622	1,245	6,136	3,346	59	80	83	133	111
Primary metal industries.....	3,769	2,412	(NA)	4,486	2,733	(NA)	5,295	3,302	56	64	60	(NA)	(NA)
Food and kindred products.....	3,578	2,198	767	4,539	2,615	1,113	5,630	3,294	63	74	71	187	135
Trans., commun., and other public utilities...	3,861	2,170	803	4,561	3,052	(NA)	6,165	3,526	78	49	75	170	(NA)
Wholesale and retail trade.....	919	1,806	697	3,584	2,198	(NA)	4,840	2,954	-49	63	64	159	(NA)
DELAWARE:													
Food and kindred products.....	2,477	1,375	560	2,831	1,892	985	5,469	3,359	80	50	63	146	92
DISTRICT OF COLUMBIA:													
Trans., commun., and other public utilities...	3,595	2,249	978	4,268	2,774	(NA)	4,899	3,282	60	54	49	130	(NA)
Wholesale and retail trade.....	2,737	1,990	755	3,308	2,352	(NA)	3,557	2,729	38	41	30	164	(NA)
FLORIDA:													
Furniture, and lumber and wood products.....	1,947	1,264	463	2,359	1,382	572	4,374	2,516	54	71	74	173	142
Stone, clay, and glass products.....	2,633	1,569	498	3,247	1,881	760	4,601	3,126	68	73	47	215	148
Food and kindred products.....	2,326	1,521	477	2,745	1,674	609	5,078	3,156	53	64	61	219	175
Chemicals and allied products.....	2,859	1,647	(NA)	4,125	2,149	(NA)	5,386	3,273	74	92	65	(NA)	(NA)
Trans., commun., and other public utilities...	2,952	1,866	632	4,049	2,481	(NA)	5,654	3,378	58	63	67	195	(NA)
Wholesale and retail trade.....	1,234	1,368	462	2,349	1,471	(NA)	4,251	2,682	-10	60	59	196	(NA)
GEORGIA:													
Furniture, and lumber and wood products.....	1,557	977	357	2,080	1,120	510	3,420	1,861	59	86	84	174	120
Stone, clay, and glass products.....	2,377	1,522	508	2,938	1,768	676	4,409	2,847	56	66	55	200	162
Primary and fabricated metal industries.....	2,753	1,605	605	3,175	2,061	725	5,095	2,800	72	54	82	165	184
Primary metal industries.....	2,820	1,704	(NA)	3,262	1,995	(NA)	4,926	2,718	65	64	81	(NA)	(NA)
Food and kindred products.....	2,122	1,409	455	2,519	1,592	654	4,890	2,901	51	58	69	210	143
Textile mill products and apparel.....	2,453	1,709	551	2,898	1,967	658	3,957	2,630	44	47	50	210	199
Chemicals and allied products.....	1,935	1,268	(NA)	3,638	1,429	(NA)	5,738	3,105	53	155	85	(NA)	(NA)
Trans., commun., and other public utilities...	2,510	1,697	575	3,848	2,166	(NA)	5,681	3,337	48	78	70	195	(NA)
Wholesale and retail trade.....	1,196	1,184	415	2,337	1,490	(NA)	3,691	2,367	1	57	56	185	(NA)

NA Not available.

Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939—Con.

[See chapter V for sources and limitations of the data. Minus sign (—) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
									La-borers	Opera-tives	Other workers	La-borers	Opera-tives
	1959	1949	1939	1959	1949	1939	1959	1949					
<b>IDAHO:</b>													
Furniture, and lumber and wood products.....	\$4,009	\$2,519	\$919	\$4,344	\$2,781	\$1,008	\$5,662	\$3,416	59	56	66	174	176
Trans., commun., and other public utilities...	3,747	2,237	814	4,132	2,622	(NA)	6,106	3,913	68	58	56	175	(NA)
Wholesale and retail trade.....	1,608	2,085	694	3,256	1,977	(NA)	4,768	3,106	-23	65	54	200	(NA)
<b>ILLINOIS:</b>													
Furniture, and lumber and wood products.....	3,118	1,908	653	4,154	2,577	922	5,373	3,296	63	61	63	192	180
Stone, clay, and glass products.....	4,513	2,597	909	5,206	3,003	1,085	6,296	3,624	74	73	74	186	177
Primary and fabricated metal industries.....	4,448	2,506	950	5,034	2,931	1,124	6,321	3,517	77	72	80	164	161
Primary metal industries.....	4,567	2,528	(NA)	5,184	3,001	(NA)	6,213	3,456	81	73	80	(NA)	(NA)
Fabricated metal industries.....	4,186	2,442	(NA)	4,924	2,875	(NA)	6,395	3,599	71	71	73	(NA)	(NA)
Machinery, including electrical.....	4,159	2,504	963	4,998	2,990	1,116	6,209	3,583	66	67	73	160	168
Transportation equipment.....	4,169	2,605	863	4,895	3,047	1,075	6,386	3,610	60	61	77	202	183
Food and kindred products.....	4,443	2,541	1,054	4,995	2,871	1,165	6,501	3,692	75	74	76	141	146
Textile mill products and apparel.....	3,164	2,145	791	4,386	2,828	1,034	5,829	3,524	48	55	65	171	174
Chemicals and allied products.....	4,400	2,563	(NA)	5,057	3,006	(NA)	6,465	3,712	72	68	74	(NA)	(NA)
Trans., commun., and other public utilities...	4,579	2,526	969	5,021	3,060	(NA)	6,419	3,782	81	64	70	161	(NA)
Wholesale and retail trade.....	1,611	2,075	761	4,327	2,609	(NA)	5,202	3,269	-22	66	59	173	(NA)
<b>INDIANA:</b>													
Furniture, and lumber and wood products.....	2,950	1,668	614	3,466	2,097	778	4,442	2,781	77	65	60	172	170
Stone, clay, and glass products.....	3,795	2,316	889	4,564	2,643	1,106	5,285	3,196	64	73	65	161	139
Primary and fabricated metal industries.....	4,054	2,526	1,074	4,897	2,918	1,286	5,792	3,454	60	68	68	134	127
Primary metal industries.....	4,106	2,553	(NA)	5,116	2,982	(NA)	5,757	3,459	67	72	66	(NA)	(NA)
Fabricated metal industries.....	3,718	2,300	(NA)	4,501	2,754	(NA)	5,888	3,435	62	63	71	(NA)	(NA)
Machinery, including electrical.....	4,109	2,368	935	5,082	2,949	1,232	5,968	3,456	74	72	73	153	139
Transportation equipment.....	4,333	2,978	904	5,142	3,333	1,266	6,432	3,776	46	54	70	229	163
Food and kindred products.....	4,024	2,410	852	4,563	2,767	1,162	5,728	3,485	67	65	64	183	138
Chemicals and allied products.....	4,264	2,711	(NA)	5,523	3,151	(NA)	6,559	3,737	57	75	76	(NA)	(NA)
Trans., commun., and other public utilities...	3,946	2,264	872	4,478	2,806	(NA)	6,392	3,757	74	60	70	160	(NA)
Wholesale and retail trade.....	987	1,870	696	3,639	2,370	(NA)	4,817	3,009	-47	54	60	169	(NA)
<b>IOWA:</b>													
Furniture, and lumber and wood products.....	2,926	1,942	714	3,856	2,573	885	4,580	2,949	51	50	55	171	191
Stone, clay, and glass products.....	3,730	2,528	860	4,484	2,774	1,058	5,484	3,584	48	62	53	194	162
Primary and fabricated metal industries.....	3,992	2,357	921	4,774	2,680	1,118	5,931	3,264	68	78	82	158	140
Primary metal industries.....	4,331	2,388	(NA)	4,831	2,631	(NA)	6,366	3,167	81	84	101	(NA)	(NA)
Machinery, including electrical.....	4,283	2,552	930	4,890	3,082	1,145	5,740	3,342	68	59	72	174	169
Food and kindred products.....	4,774	2,612	1,106	5,192	2,873	1,214	5,833	3,458	83	81	69	136	137
Chemicals and allied products.....	3,610	2,548	(NA)	5,231	3,095	(NA)	6,254	3,492	42	69	79	(NA)	(NA)
Trans., commun., and other public utilities...	4,091	2,368	833	4,668	2,947	(NA)	5,989	3,674	73	58	63	184	(NA)
Wholesale and retail trade.....	1,168	2,042	681	3,475	2,370	(NA)	4,513	3,007	-43	47	50	200	(NA)

NA Not available.



Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939—Con.

[See chapter V for sources and limitations of the data. Minus sign (—) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	1959	1949	1939	1959	1949	1939	1959	1949	La-borers	Opera-tives	Other workers	La-borers	Opera-tives
<b>KANSAS:</b>													
Stone, clay, and glass products.....	\$4,111	\$2,176	\$741	\$4,770	\$2,485	\$946	\$5,423	\$3,121	89	92	74	194	163
Food and kindred products.....	3,850	2,325	904	4,463	2,557	1,060	5,636	3,262	66	75	73	157	141
Chemicals and allied products.....	4,615	2,357	(NA)	5,243	3,041	(NA)	6,295	3,719	96	72	69	(NA)	(NA)
Trans., commun., and other public utilities...	4,029	2,221	816	4,899	3,050	(NA)	5,758	3,522	81	61	63	172	(NA)
Wholesale and retail trade.....	1,324	1,923	646	3,474	2,310	(NA)	4,518	2,846	-31	50	59	198	(NA)
<b>KENTUCKY:</b>													
Furniture, and lumber and wood products.....	1,562	1,128	396	2,697	1,647	705	3,262	2,291	38	64	42	185	134
Stone, clay, and glass products.....	3,143	2,067	632	3,725	2,085	798	5,114	2,887	52	79	77	227	161
Primary and fabricated metal industries.....	3,876	2,313	780	4,385	2,611	1,098	5,589	3,231	68	68	72	197	138
Primary metal industries.....	3,937	2,397	(NA)	4,584	2,797	(NA)	5,641	3,299	64	64	71	(NA)	(NA)
Fabricated metal industries.....	3,770	2,202	(NA)	4,259	2,490	(NA)	5,538	3,205	71	71	73	(NA)	(NA)
Machinery, including electrical.....	3,844	1,939	730	4,531	2,595	936	5,794	3,119	98	75	86	166	177
Food and kindred products.....	3,497	2,200	709	4,301	2,474	930	5,456	3,240	59	74	68	210	166
Chemicals and allied products.....	4,003	2,054	(NA)	5,628	2,784	(NA)	6,323	3,433	95	102	84	(NA)	(NA)
Trans., commun., and other public utilities...	3,429	2,047	716	4,281	2,498	(NA)	5,489	3,238	68	71	70	186	(NA)
Wholesale and retail trade.....	1,496	1,498	522	2,726	2,128	(NA)	3,794	2,402	0	28	58	187	(NA)
<b>LOUISIANA:</b>													
Furniture, and lumber and wood products.....	1,962	1,254	470	2,217	1,428	568	4,228	2,395	56	55	77	167	151
Stone, clay, and glass products.....	2,648	1,721	660	4,112	2,372	966	4,805	2,935	54	73	64	161	146
Food and kindred products.....	2,380	1,566	429	2,977	1,810	643	4,836	2,816	52	64	72	265	181
Chemicals and allied products.....	3,752	1,841	(NA)	6,177	3,048	(NA)	6,653	3,689	104	103	80	(NA)	(NA)
Trans., commun., and other public utilities...	2,675	1,764	613	4,215	2,357	(NA)	5,230	3,286	52	79	59	188	(NA)
Wholesale and retail trade.....	1,623	1,401	511	2,323	1,663	(NA)	3,847	2,568	16	40	50	174	(NA)
<b>MAINE:</b>													
Furniture, and lumber and wood products.....	2,206	1,649	558	2,637	1,758	700	3,698	2,497	34	50	48	196	151
Food and kindred products.....	2,225	1,047	462	3,051	1,602	693	4,821	2,961	113	90	63	127	131
Textile mill products and apparel.....	2,770	2,002	625	3,281	2,277	723	4,277	3,199	38	44	34	220	215
Trans., commun., and other public utilities...	3,560	1,935	810	4,453	2,500	(NA)	5,236	3,081	84	78	70	139	(NA)
Wholesale and retail trade.....	1,496	1,430	583	2,814	1,815	(NA)	3,937	2,565	5	55	53	145	(NA)
<b>MARYLAND:</b>													
Furniture, and lumber and wood products.....	1,891	1,240	476	3,001	1,823	752	4,601	2,838	53	65	62	161	142
Stone, clay, and glass products.....	3,480	2,125	703	4,711	2,546	963	5,582	3,278	64	85	70	202	164
Primary and fabricated metal industries.....	3,784	2,391	1,006	4,533	2,737	1,208	5,576	3,249	58	66	72	138	127
Primary metal industries.....	3,759	2,424	(NA)	4,490	2,804	(NA)	5,313	3,219	55	60	65	(NA)	(NA)
Fabricated metal industries.....	4,030	2,157	(NA)	4,686	2,584	(NA)	6,205	3,349	87	81	85	(NA)	(NA)
Food and kindred products.....	2,659	1,769	664	3,416	2,197	1,016	5,777	3,380	50	55	71	166	116

NA Not available.

Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939—Con.

[See chapter V for sources and limitations of the data. Minus sign (—) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	Laborers			Operatives			Other workers		La-borers	Opera-tives	Other workers	La-borers	Opera-tives
	1959	1949	1939	1959	1949	1939	1959	1949					
MARYLAND--Con.													
Chemicals and allied products.....	\$3,400	\$2,092	(NA)	\$4,465	\$2,477	(NA)	\$5,997	\$3,279	63	80	83	(NA)	(NA)
Trans., commun., and other public utilities...	3,589	2,238	\$861	4,461	2,860	(NA)	6,110	3,545	60	56	72	160	(NA)
Wholesale and retail trade.....	2,055	1,525	591	3,390	1,914	(NA)	4,793	2,939	35	77	63	158	(NA)
MASSACHUSETTS:													
Furniture, and lumber and wood products.....	2,705	1,837	723	3,656	2,275	883	4,618	2,963	47	61	56	154	158
Primary and fabricated metal industries.....	3,825	2,370	918	4,431	2,665	1,130	5,575	3,073	61	66	81	158	136
Primary metal industries.....	3,916	2,594	(NA)	4,623	2,887	(NA)	5,633	2,909	51	60	94	(NA)	(NA)
Fabricated metal industries.....	3,744	2,265	(NA)	4,314	2,604	(NA)	5,552	3,164	65	66	75	(NA)	(NA)
Machinery, including electrical.....	3,652	2,441	1,005	4,562	2,887	1,187	5,899	3,282	50	58	80	143	143
Transportation equipment.....	4,242	2,563	1,035	4,922	2,861	1,182	5,993	3,342	66	72	79	148	142
Food and kindred products.....	3,696	2,304	1,019	4,219	2,487	1,112	5,564	3,326	60	70	67	126	124
Textile mill products and apparel.....	2,845	2,017	700	3,530	2,253	805	4,884	3,061	41	57	60	188	180
Chemicals and allied products.....	4,635	2,500	(NA)	5,020	2,845	(NA)	6,202	3,553	85	76	75	(NA)	(NA)
Trans., commun., and other public utilities...	3,873	2,433	1,076	4,740	2,946	(NA)	6,072	3,384	59	61	79	126	(NA)
Wholesale and retail trade.....	953	2,039	819	4,003	2,403	(NA)	4,553	2,784	-53	67	64	149	(NA)
MICHIGAN:													
Furniture, and lumber and wood products.....	2,624	1,824	663	3,705	2,375	892	5,003	3,198	44	56	56	175	166
Stone, clay, and glass products.....	4,411	2,629	992	4,738	2,958	1,241	6,020	3,706	68	60	62	165	138
Primary and fabricated metal industries.....	4,134	2,645	962	4,726	2,997	1,150	6,246	3,691	56	58	69	175	161
Primary metal industries.....	4,159	2,639	(NA)	4,799	3,025	(NA)	6,047	3,622	58	59	67	(NA)	(NA)
Fabricated metal industries.....	4,059	2,661	(NA)	4,657	2,956	(NA)	6,417	3,777	53	58	70	(NA)	(NA)
Machinery, including electrical.....	4,106	2,586	947	5,273	3,053	1,180	6,483	3,832	69	73	69	173	159
Transportation equipment.....	4,534	2,785	1,149	4,937	3,070	1,284	6,953	3,840	63	61	81	142	139
Food and kindred products.....	3,469	2,510	884	4,954	3,064	1,231	6,277	3,840	38	62	63	184	149
Chemicals and allied products.....	5,137	3,008	(NA)	5,713	3,321	(NA)	6,638	3,955	71	72	68	(NA)	(NA)
Trans., commun., and other public utilities...	4,325	2,659	970	5,178	3,119	(NA)	6,572	3,932	63	66	67	174	(NA)
Wholesale and retail trade.....	896	1,831	756	4,212	2,655	(NA)	4,879	3,270	-51	59	49	142	(NA)
MINNESOTA:													
Furniture, and lumber and wood products.....	2,411	2,177	596	3,790	2,466	1,028	5,195	3,151	11	54	65	265	140
Stone, clay, and glass products.....	4,003	2,213	904	5,102	2,623	1,108	6,196	3,331	81	95	86	145	137
Primary and fabricated metal industries.....	4,110	2,514	933	4,665	2,747	1,203	5,815	3,349	63	70	74	169	128
Primary metal industries.....	4,080	2,541	(NA)	4,845	2,843	(NA)	5,765	3,327	61	70	73	(NA)	(NA)
Fabricated metal industries.....	4,146	2,438	(NA)	4,610	2,654	(NA)	5,830	3,363	70	74	73	(NA)	(NA)
Machinery, including electrical.....	3,996	2,261	892	4,531	2,701	1,105	5,662	3,371	77	68	68	153	144
Transportation equipment.....	(NA)	2,400	935	4,638	2,921	1,311	6,208	3,255	(NA)	59	91	157	123

NA Not available.



Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939—Con.

[See chapter V for sources and limitations of the data. Minus sign ( - ) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	Laborers			Operatives			Other workers		La-borers	Opera-tives	Other workers	La-borers	Opera-tives
	1959	1949	1939	1959	1949	1939	1959	1949					
<b>MINNESOTA--Con.</b>													
Food and kindred products.....	\$4,496	\$2,691	\$1,179	\$4,862	\$2,944	\$1,299	\$5,921	\$3,490	67	65	70	128	127
Trans., commun., and other public utilities...	4,063	2,347	874	4,717	3,034	(NA)	6,191	3,571	73	55	73	169	(NA)
Wholesale and retail trade.....	1,165	2,083	774	4,004	2,398	(NA)	4,834	3,036	44	67	59	169	(NA)
<b>MISSISSIPPI:</b>													
Furniture, and lumber and wood products.....	1,644	1,049	431	2,058	1,174	519	3,470	1,861	57	75	86	143	126
Stone, clay, and glass products.....	2,139	1,327	660	2,838	1,511	860	3,928	2,823	61	88	39	101	176
Food and kindred products.....	1,697	1,194	421	2,296	1,559	542	4,477	2,664	42	47	68	184	188
Chemicals and allied products.....	2,468	1,333	(NA)	3,524	1,685	(NA)	5,398	2,830	85	109	91	(NA)	(NA)
Trans., commun., and other public utilities...	2,268	1,549	509	3,385	1,894	(NA)	4,641	3,091	46	79	50	204	(NA)
Wholesale and retail trade.....	1,118	1,121	424	1,779	1,393	(NA)	3,465	2,246	0	28	54	164	(NA)
<b>MISSOURI:</b>													
Furniture, and lumber and wood products.....	1,634	1,208	424	2,834	1,632	803	4,530	2,582	35	74	75	185	103
Stone, clay, and glass products.....	4,280	2,341	772	4,668	2,681	1,077	5,445	3,251	83	74	67	203	149
Primary and fabricated metal industries.....	4,058	2,188	822	4,672	2,526	1,024	5,966	3,216	85	85	86	166	147
Primary metal industries.....	4,049	2,207	(NA)	4,706	2,602	(NA)	5,813	3,176	83	81	83	(NA)	(NA)
Fabricated metal industries.....	4,067	2,138	(NA)	4,648	2,464	(NA)	6,034	3,248	90	89	86	(NA)	(NA)
Machinery, including electrical.....	3,660	2,241	809	4,571	2,677	1,028	5,663	3,307	63	71	71	177	160
Transportation equipment.....	4,296	2,373	891	4,600	3,011	1,173	5,925	3,395	81	53	75	166	157
Food and kindred products.....	3,942	2,378	882	4,851	2,744	1,150	5,748	3,363	66	77	71	170	139
Chemicals and allied products.....	4,229	2,444	(NA)	5,333	3,056	(NA)	6,402	3,672	73	75	74	(NA)	(NA)
Trans., commun., and other public utilities...	4,007	2,206	822	4,701	2,792	(NA)	6,379	3,464	82	68	84	168	(NA)
Wholesale and retail trade.....	1,576	1,799	618	3,572	2,337	(NA)	4,391	2,768	12	53	59	191	(NA)
<b>MONTANA:</b>													
Furniture, and lumber and wood products.....	3,410	2,328	973	4,139	2,568	944	5,512	3,307	46	61	67	139	172
Primary and fabricated metal industries.....	3,317	2,925	1,259	3,777	3,159	1,403	4,813	3,570	13	20	35	132	125
Primary metal industries.....	3,336	2,930	(NA)	3,773	3,151	(NA)	4,727	3,584	14	20	32	(NA)	(NA)
Trans., commun., and other public utilities...	3,663	2,277	853	4,854	3,114	(NA)	6,042	3,879	61	56	56	167	(NA)
<b>NEBRASKA:</b>													
Stone, clay, and glass products.....	4,077	2,283	817	4,055	2,591	(B)	4,766	2,849	79	57	67	179	(B)
Food and kindred products.....	4,415	2,372	955	4,806	2,622	1,059	5,661	3,262	86	83	74	148	148
Trans., commun., and other public utilities...	3,974	2,234	785	4,597	2,775	(NA)	5,629	3,449	78	66	63	185	(NA)
Wholesale and retail trade.....	1,491	1,826	648	3,333	2,154	(NA)	4,334	2,865	18	55	51	182	(NA)
<b>NEW HAMPSHIRE:</b>													
Furniture, and lumber and wood products.....	2,570	1,542	661	3,060	1,860	754	4,372	2,673	67	65	64	133	147
Stone, clay, and glass products.....	(B)	(B)	836	3,803	2,036	1,011	5,079	2,995	(B)	87	70	(B)	101
Textile mill products and apparel.....	3,032	2,132	679	3,499	2,268	798	4,571	3,156	42	54	45	214	184

B Base less than 200.

NA Not available.

Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939—Con.

[See chapter V for sources and limitations of the data. Minus sign (—) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	1959	1949	1939	1959	1949	1939	1959	1949	La-borers	Opera-tives	Other workers	La-borers	Opera-tives
NEW JERSEY:													
Furniture, and lumber and wood products.....	\$2,833	\$2,016	\$745	\$3,876	\$2,485	\$991	\$5,273	\$3,147	41	56	68	171	151
Stone, clay, and glass products.....	3,983	2,283	883	4,981	2,811	1,095	5,801	3,366	74	77	72	159	157
Primary and fabricated metal industries.....	4,214	2,421	1,006	4,793	2,734	1,091	6,146	3,390	74	75	81	141	151
Primary metal industries.....	4,285	2,457	(NA)	4,856	2,796	(NA)	5,888	3,243	74	74	82	(NA)	(NA)
Fabricated metal industries.....	4,089	2,332	(NA)	4,729	2,673	(NA)	6,350	3,553	75	77	79	(NA)	(NA)
Machinery, including electrical.....	4,069	2,365	1,009	4,929	2,796	1,172	6,450	3,544	72	76	82	134	139
Transportation equipment.....	4,251	2,522	1,019	5,119	3,101	1,246	5,084	3,447	69	65	47	147	149
Food and kindred products.....	4,061	2,592	1,020	5,029	2,841	1,164	6,479	3,735	57	77	73	154	144
Textile mill products and apparel.....	3,405	2,303	811	4,364	2,621	874	5,828	3,487	48	67	67	184	200
Chemicals and allied products.....	4,431	2,664	(NA)	5,517	3,176	(NA)	6,686	3,845	66	74	74	(NA)	(NA)
Trans., commun., and other public utilities...	4,427	2,462	1,010	5,169	3,058	(NA)	6,340	3,707	72	69	71	144	(NA)
Wholesale and retail trade.....	2,114	2,057	772	4,317	3,058	(NA)	5,126	3,045	3	41	68	166	(NA)
NEW MEXICO:													
Trans., commun., and other public utilities...	3,005	1,759	720	4,670	2,636	(NA)	5,604	3,680	71	77	52	144	(NA)
NEW YORK:													
Furniture, and lumber and wood products.....	2,882	2,003	709	3,502	2,395	912	4,951	3,119	44	46	59	183	163
Stone, clay, and glass products.....	4,375	2,509	932	4,689	2,760	1,113	5,767	3,549	74	70	62	169	148
Primary and fabricated metal industries.....	3,940	2,503	918	4,458	2,703	1,060	5,796	3,318	57	65	75	173	155
Primary metal industries.....	3,977	2,561	(NA)	4,735	2,857	(NA)	5,677	3,291	55	66	73	(NA)	(NA)
Fabricated metal industries.....	3,812	2,277	(NA)	4,171	2,546	(NA)	5,918	3,349	67	64	77	(NA)	(NA)
Machinery, including electrical.....	4,065	2,467	959	4,617	2,925	1,155	6,145	3,440	65	58	79	157	153
Transportation equipment.....	4,251	2,538	946	4,998	3,022	1,140	6,186	3,378	67	65	83	168	165
Food and kindred products.....	4,250	2,572	972	4,642	2,713	1,189	5,990	3,465	65	71	73	165	128
Textile mill products and apparel.....	3,243	2,234	770	4,200	2,789	875	5,755	3,464	45	51	66	190	219
Chemicals and allied products.....	4,472	2,643	(NA)	5,157	2,998	(NA)	6,393	3,711	69	72	72	(NA)	(NA)
Trans., commun., and other public utilities...	4,416	2,539	1,094	5,075	3,029	(NA)	5,975	3,534	74	68	69	132	(NA)
Wholesale and retail trade.....	2,124	2,157	799	4,014	2,563	(NA)	4,861	3,076	-2	57	58	170	(NA)
NORTH CAROLINA:													
Furniture, and lumber and wood products.....	1,679	1,136	460	2,484	1,459	638	3,133	2,135	48	70	47	147	129
Stone, clay, and glass products.....	2,387	1,563	520	2,606	1,709	636	4,046	2,691	53	52	50	201	169
Food and kindred products.....	1,909	1,433	509	2,435	1,705	687	4,527	2,841	33	43	59	182	148
Textile mill products and apparel.....	2,549	1,756	600	3,007	2,052	699	4,169	2,716	45	47	53	193	194
Chemicals and allied products.....	1,772	1,281	(NA)	3,544	1,952	(NA)	5,410	3,130	38	82	73	(NA)	(NA)
Trans., commun., and other public utilities...	2,485	1,293	623	3,304	2,216	(NA)	5,745	3,226	92	78	78	108	(NA)
Wholesale and retail trade.....	1,157	1,257	455	2,166	1,496	(NA)	3,570	2,407	-8	45	48	176	(NA)

NA Not available.



Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939—Con.

[See chapter V for sources and limitations of the data. Minus sign (—) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	1959	1949	1939	1959	1949	1939	1959	1949	La-borers	Opera-tives	Other workers	La-borers	Opera-tives
NORTH DAKOTA: Trans., comm., and other public utilities..... Wholesale and retail trade.....	\$3,555	\$2,252	\$647	\$4,240	\$2,863	(NA)	\$5,814	\$3,651	58	48	59	248	(NA)
	1,851	2,017	553	2,891	2,161	(NA)	4,368	3,095	-8	34	41	265	(NA)
	3,078	1,836	745	4,135	2,520	\$991	5,143	3,218	68	64	60	146	154
	3,971	2,403	883	4,778	2,787	1,095	5,708	3,414	65	71	67	172	155
	4,077	2,403	1,006	4,885	2,841	1,091	5,920	3,367	70	72	76	139	160
	4,104	2,412	(NA)	5,022	2,878	(NA)	5,904	3,331	70	74	77	(NA)	(NA)
	3,952	2,342	(NA)	4,715	2,778	(NA)	5,949	3,459	69	70	72	(NA)	(NA)
	4,167	2,415	1,008	5,203	3,023	1,172	6,175	3,516	73	72	76	140	158
	4,431	2,542	1,021	5,306	3,060	1,246	6,593	3,588	74	73	84	149	146
	3,772	2,321	1,020	4,729	2,770	1,164	6,026	3,623	63	71	66	128	138
OHIO: Furniture, and lumber and wood products..... Stone, clay, and glass products..... Primary and fabricated metal industries..... Primary metal industries..... Fabricated metal industries..... Machinery, including electrical..... Transportation equipment..... Food and kindred products..... Textile mill products and apparel..... Chemicals and allied products..... Trans., commun., and other public utilities... Wholesale and retail trade.....	3,338	2,090	811	4,313	2,760	874	5,596	3,475	60	56	61	158	216
	4,428	2,432	(NA)	5,444	3,097	(NA)	6,581	3,763	82	76	75	(NA)	(NA)
	4,156	2,368	1,010	4,801	2,919	(NA)	6,324	3,678	76	64	72	134	(NA)
	1,034	1,910	772	3,905	2,505	(NA)	4,764	3,079	-46	56	55	147	(NA)
	2,175	1,194	401	2,675	1,500	619	3,402	2,199	82	78	55	198	142
	3,275	1,993	654	4,565	2,509	964	4,836	3,001	64	82	61	205	160
	3,691	2,636	863	4,178	2,623	989	5,513	3,436	40	59	60	205	165
	3,914	2,798	(NA)	4,226	2,826	(NA)	5,205	3,458	40	50	51	(NA)	(NA)
	2,668	1,801	710	3,270	2,132	938	5,619	3,127	48	53	80	154	127
	3,268	2,051	760	4,312	2,846	(NA)	5,480	3,132	59	52	75	170	(NA)
OKLAHOMA: Furniture, and lumber and wood products..... Stone, clay, and glass products..... Primary and fabricated metal industries..... Primary metal industries..... Food and kindred products..... Trans., commun., and other public utilities... Wholesale and retail trade.....	960	1,500	556	3,069	1,883	(NA)	3,971	2,613	-36	63	52	170	(NA)
	4,355	2,671	989	4,779	2,925	1,080	6,177	3,866	63	63	60	170	171
	4,792	2,647	894	4,969	2,931	1,115	6,157	3,872	81	70	59	196	163
	2,918	2,477	762	4,416	2,845	1,143	6,189	3,710	18	55	67	225	149
	4,295	2,562	940	4,929	3,151	(NA)	6,681	3,911	68	56	71	173	(NA)
	1,226	2,580	870	4,293	2,765	(NA)	5,295	3,395	-52	55	56	197	(NA)
	2,579	1,704	652	3,448	2,046	788	4,305	2,738	51	69	57	161	160
	4,164	2,377	872	4,678	2,698	1,070	5,496	3,287	75	73	67	173	152
	3,939	2,414	947	4,597	2,767	1,153	5,624	3,220	63	66	75	155	140
	PENNSYLVANIA: Furniture, and lumber and wood products..... Stone, clay, and glass products..... Primary and fabricated metal industries..... Primary metal industries..... Fabricated metal industries.....	3,980	2,430	(NA)	4,708	2,821	(NA)	5,582	3,213	64	67	74	(NA)
3,744		2,287	(NA)	4,404	2,614	(NA)	5,726	3,246	64	68	76	(NA)	(NA)

NA Not available.

Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939—Con.

[See chapter V for sources and limitations of the data. Minus sign (—) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
	1959	1949	1939	1959	1949	1939	1959	1949	La-borers	Opera-tives	Other workers	La-borers	Opera-tives
PENNSYLVANIA--Con. Machinery, including electrical..... Transportation equipment..... Food and kindred products..... Textile mill products and apparel..... Chemicals and allied products..... Trans., commun., and other public utilities... Wholesale and retail trade.....	\$4,052	\$2,504	\$990	\$4,776	\$2,971	\$1,134	\$5,912	\$3,399	62	61	74	153	162
	4,173	2,443	888	4,709	2,874	1,091	5,870	3,314	71	64	77	175	163
	3,668	2,329	977	4,213	2,532	1,095	5,621	3,322	57	66	69	138	131
	2,981	2,196	754	3,593	2,535	879	4,947	3,110	36	42	59	191	188
	4,157	2,453	(NA)	4,842	2,774	(NA)	6,105	3,585	69	75	70	(NA)	(NA)
	3,945	2,298	915	4,665	2,750	(NA)	5,856	3,441	72	70	70	151	(NA)
	1,872	1,914	987	3,767	2,299	(NA)	4,464	2,903	-2	64	54	94	(NA)
	(B)	(B)	(B)	4,140	2,417	1,059	5,190	2,826	(B)	71	84	(B)	128
	3,002	2,106	694	3,555	2,273	848	4,832	3,156	43	56	53	203	168
	3,566	2,201	883	4,539	2,833	(NA)	6,017	3,061	62	60	97	149	(NA)
SOUTH CAROLINA: Furniture, and lumber and wood products..... Stone, clay, and glass products..... Food and kindred products..... Textile mill products and apparel..... Chemicals and allied products..... Trans., commun., and other public utilities... Wholesale and retail trade.....	1,825	1,855	733	3,572	2,034	(NA)	4,100	2,608	-2	76	57	153	(NA)
	1,622	1,079	421	2,040	1,143	506	3,018	2,110	50	78	43	156	126
	2,115	1,250	461	3,053	1,510	693	4,630	2,679	69	102	73	171	118
	1,593	1,072	394	2,225	1,453	569	4,695	2,918	49	53	61	172	155
	2,532	1,797	573	3,179	2,178	709	4,238	2,902	41	46	46	214	207
	2,209	1,186	(NA)	5,238	1,551	(NA)	6,501	2,684	86	238	142	(NA)	(NA)
	2,085	1,549	532	3,369	1,980	(NA)	5,450	3,201	35	70	70	191	(NA)
	1,110	1,112	394	1,845	1,309	(NA)	3,460	2,391	0	41	45	182	(NA)
	(B)	(B)	(B)	4,157	(B)	(B)	5,478	(B)	(B)	(B)	(B)	(B)	(B)
	5,154	2,788	1,204	5,455	3,093	1,249	5,219	3,526	85	76	48	132	148
TENNESSEE: Furniture, and lumber and wood products..... Stone, clay, and glass products..... Primary and fabricated metal industries..... Primary metal industries..... Fabricated metal industries..... Food and kindred products..... Textile mill products and apparel..... Chemicals and allied products..... Trans., commun., and other public utilities... Wholesale and retail trade.....	1,075	1,944	623	2,533	2,221	(NA)	4,143	2,928	-45	14	41	212	(NA)
	1,609	1,149	399	2,238	1,357	589	3,133	2,142	40	65	46	188	130
	2,704	1,612	525	3,708	2,027	786	4,883	2,787	68	83	75	207	158
	3,292	1,795	678	3,820	2,014	783	5,062	2,716	83	90	86	165	157
	3,605	1,831	(NA)	4,627	2,181	(NA)	5,410	2,653	97	112	104	(NA)	(NA)
	2,893	1,716	(NA)	3,255	1,772	(NA)	4,852	2,816	69	84	72	(NA)	(NA)
	2,477	1,492	543	3,147	1,907	719	4,961	2,938	66	65	69	175	165
	2,402	1,811	629	2,778	2,044	717	4,019	2,771	33	36	45	188	185
	3,909	1,707	(NA)	5,269	2,890	(NA)	6,373	3,588	129	82	78	(NA)	(NA)
	2,793	1,866	636	3,641	2,352	(NA)	5,605	3,338	50	55	68	193	(NA)
	1,300	467	2,397	1,789	(NA)	3,570	2,334	5	34	53	178	(NA)	

B Base less than 200. NA Not available.



Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939—Con.

[See chapter V for sources and limitations of the data. Minus sign (—) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949	
									La- borers	Opera- tives	Other workers	La- borers	Opera- tives
	1959	1949	1939	1959	1949	1939	1959	1949					
TEXAS:													
Furniture, and lumber and wood products.....	\$1,989	\$1,361	\$502	\$2,618	\$1,532	\$639	\$4,271	\$2,617	46	71	63	171	140
Stone, clay, and glass products.....	2,828	1,630	580	3,655	2,146	814	4,759	3,237	73	70	47	181	164
Primary and fabricated metal industries.....	3,356	1,932	649	4,325	2,464	861	5,674	3,391	74	76	67	198	186
Primary metal industries.....	3,531	1,965	(NA)	4,776	2,443	(NA)	5,877	3,399	80	95	73	(NA)	(NA)
Fabricated metal industries.....	3,054	1,846	(NA)	3,883	2,483	(NA)	5,518	3,382	65	56	63	(NA)	(NA)
Machinery, including electrical.....	3,307	2,005	795	4,269	2,586	1,148	6,005	3,531	65	65	70	152	125
Transportation equipment.....	3,327	2,217	594	4,754	2,682	970	6,200	3,507	50	77	87	273	176
Food and kindred products.....	2,475	1,617	590	3,113	1,990	797	5,159	3,217	53	56	60	174	150
Textile mill products and apparel.....	2,085	1,590	562	2,885	1,927	669	4,807	3,048	31	50	58	183	188
Chemicals and allied products.....	4,002	1,944	(NA)	6,590	3,162	(NA)	6,786	3,902	106	108	74	(NA)	(NA)
Trans., commun., and other public utilities....	2,936	1,929	670	4,392	2,732	(NA)	5,471	3,334	52	61	64	188	(NA)
Wholesale and retail trade.....	1,253	1,413	463	2,562	1,768	(NA)	4,052	3,346	-11	45	21	205	(NA)
UTAH:													
Primary and fabricated metal industries.....	4,337	2,726	1,178	4,862	3,041	1,308	5,824	3,541	59	60	64	131	132
Primary metal industries.....	4,396	2,764	(NA)	4,811	3,057	(NA)	5,920	3,542	59	57	67	(NA)	(NA)
Trans., commun., and other public utilities....	3,829	2,273	842	4,893	3,063	(NA)	6,215	3,851	68	60	61	170	(NA)
Wholesale and retail trade.....	1,014	2,072	868	3,645	2,273	(NA)	4,906	3,138	-51	60	56	139	(NA)
VERMONT:													
Furniture, and lumber and wood products.....	2,353	1,653	654	2,781	1,845	740	4,021	2,621	42	51	53	153	149
VIRGINIA:													
Furniture, and lumber and wood products.....	1,705	1,099	435	2,489	1,366	638	3,392	2,227	55	82	52	153	114
Stone, clay, and glass products.....	2,926	1,670	556	3,323	1,814	729	4,708	3,088	75	83	52	200	149
Primary and fabricated metal industries.....	3,298	1,759	655	3,918	2,326	824	5,546	3,143	87	68	76	169	182
Primary metal industries.....	3,255	1,738	(NA)	4,230	2,137	(NA)	5,663	2,773	87	98	104	(NA)	(NA)
Transportation equipment.....	3,704	2,179	840	4,381	2,673	1,094	5,901	3,402	70	64	73	159	144
Food and kindred products.....	2,212	1,489	447	2,596	1,672	664	4,955	3,075	49	55	61	233	152
Textile mill products and apparel.....	2,627	1,810	572	3,198	2,232	693	4,433	2,919	45	43	52	216	222
Chemicals and allied products.....	3,357	1,972	(NA)	4,727	2,870	(NA)	5,785	3,416	70	65	69	(NA)	(NA)
Trans., commun., and other public utilities....	3,009	1,970	714	3,991	2,616	(NA)	5,804	3,329	53	53	74	176	(NA)
Wholesale and retail trade.....	1,505	1,359	496	2,392	1,625	(NA)	4,063	2,660	11	47	53	174	(NA)
WASHINGTON:													
Furniture, and lumber and wood products.....	4,163	2,655	1,023	4,642	2,953	1,153	5,505	3,615	57	57	52	160	156
Stone, clay, and glass products.....	3,933	2,742	1,107	4,867	2,995	1,263	6,087	3,623	43	63	68	148	137
Primary and fabricated metal industries.....	4,271	2,476	1,224	5,263	2,975	1,306	6,279	3,572	72	77	76	102	128
Primary metal industries.....	4,468	2,547	(NA)	5,467	3,021	(NA)	6,177	3,460	75	81	79	(NA)	(NA)

NA Not available.

Table D-1.—MEDIAN INCOME OF LABORERS, OPERATIVES, AND "OTHER WORKERS," BY INDUSTRY AND STATE: 1959, 1949, AND 1939—Con.

[See chapter V for sources and limitations of the data. Minus sign (—) denotes decrease]

State and industry	Laborers			Operatives			Other workers		Percent increase, 1949 to 1959			Percent increase, 1939 to 1949		
	1959	1949	1939	1959	1949	1939	1959	1949	La-borers	Opera-tives	Other workers	La-borers	Opera-tives	La-borers
WASHINGTON--Con.														
Transportation equipment.....	\$4,438	\$2,522	\$1,112	\$5,011	\$3,176	\$1,337	\$6,171	\$3,674	76	58	68	127	138	
Food and kindred products.....	3,230	2,522	784	4,985	2,968	1,141	6,271	3,799	28	68	65	222	160	
Trans., commun., and other public utilities...	4,121	2,429	871	4,809	3,123	(NA)	6,647	4,042	70	54	64	179	(NA)	
Wholesale and retail trade.....	948	2,572	881	4,279	2,843	(NA)	5,519	3,483	-63	51	58	192	(NA)	
WEST VIRGINIA:														
Furniture, and lumber and wood products.....	1,723	1,326	470	2,045	1,424	661	3,239	2,547	30	44	27	182	115	
Stone, clay, and glass products.....	3,633	2,050	830	4,917	2,690	1,107	5,444	3,285	77	83	66	147	143	
Primary and fabricated metal industries.....	4,488	2,478	1,036	5,208	2,789	1,169	6,210	3,428	81	87	81	139	139	
Primary metal industries.....	4,694	2,544	(NA)	5,673	2,978	(NA)	6,550	3,488	85	90	88	(NA)	(NA)	
Fabricated metal industries.....	3,228	1,989	(NA)	4,010	2,292	(NA)	5,038	3,074	62	75	64	(NA)	(NA)	
Food and kindred products.....	2,105	1,605	604	2,993	2,123	923	6,389	3,325	31	41	92	166	130	
Textile mill products and apparel.....	(B)	(B)	(B)	(B)	(B)	802	(B)	(B)	(B)	(B)	(B)	(B)	(B)	
Chemicals and allied products.....	4,516	2,752	(NA)	6,227	3,462	(NA)	6,692	4,044	64	80	65	(NA)	(NA)	
Trans., commun., and other public utilities...	3,517	2,108	817	4,182	2,492	(NA)	5,666	3,347	67	68	69	158	(NA)	
Wholesale and retail trade.....	1,010	1,700	573	2,636	2,218	(NA)	3,852	2,671	-41	19	44	197	(NA)	
WISCONSIN:														
Furniture, and lumber and wood products.....	2,860	1,937	763	3,600	2,383	946	4,583	3,014	48	51	52	154	152	
Stone, clay, and glass products.....	4,341	2,672	934	4,550	3,058	1,301	5,727	3,563	62	49	61	186	135	
Primary and fabricated metal industries.....	4,341	2,568	1,080	4,958	2,930	1,231	6,025	3,509	69	69	72	138	138	
Primary metal industries.....	4,416	2,596	(NA)	5,119	2,985	(NA)	6,011	3,463	70	71	74	(NA)	(NA)	
Fabricated metal industries.....	4,257	2,516	(NA)	4,833	2,902	(NA)	6,037	3,550	69	67	70	(NA)	(NA)	
Machinery, including electrical.....	4,262	2,549	1,010	5,145	3,012	1,275	5,960	3,453	67	71	73	152	136	
Transportation equipment.....	4,890	2,695	1,196	5,350	3,058	1,384	5,961	3,356	81	75	78	125	121	
Food and kindred products.....	4,406	2,621	1,027	4,624	2,905	1,249	5,796	3,471	68	59	67	155	133	
Trans., commun., and other public utilities...	4,251	2,480	967	4,828	3,077	(NA)	6,389	3,696	71	57	73	156	(NA)	
Wholesale and retail trade.....	1,069	2,023	830	3,720	2,444	(NA)	4,773	3,072	-47	52	55	144	(NA)	
WYOMING:														
Trans., commun., and other public utilities...	4,010	2,292	895	4,907	3,176	(NA)	6,079	4,106	75	55	48	156	(NA)	

B Base less than 200.

NA Not available.

Source: Data for 1959 derived from 1960 Census of Population, Vol. I, Characteristics of the Population, chapter C, tables 124 and 130 (for each State); 1949 data from 1950 Census of Population, Vol. II, Characteristics of the Population, chapter C, tables 78 and 86 (for each State); and 1939 from 1940 Census of Population, Vol. III, The Labor Force—Occupation, Industry, Employment, and Income, by States, table 16 (for each State).



## APPENDIX E

# STATISTICAL TABLES SHOWING LIFE- TIME EARNINGS BY EDUCATION, COLOR, AND REGION, FOR SELECTED OCCUPATIONS

See chapter VI for a general description of the procedures used to estimate lifetime earnings. In preparing the tables that follow, the mean earnings used for each age group are those shown in *U.S. Census of Population: 1960*, Vol. II, *Occupation by Earnings and Education*. The life tables used are shown below. Lifetime earnings were not estimated where there were three or more age groups with fewer than 1,000 workers.

**Table E-1.—ESTIMATED NUMBER OF MAN-YEARS LIVED AT EACH AGE BY SURVIVORS OF 100,000 MALE INFANTS BORN ALIVE: 1959 AND 1949**

Age group	1959			1949		
	Total	White	Nonwhite	Total	White	Nonwhite
Number reaching 18 years.....	95,716	96,134	93,297	95,001	95,387	92,431
Man-years in each age group:						
18 and 19 years.....	191,150	191,996	186,242	189,702	190,496	184,387
20 and 21 years.....	190,538	191,408	185,467	189,046	189,896	183,291
22 to 24 years.....	284,538	285,913	276,487	282,209	283,624	272,456
25 to 29 years.....	470,947	473,560	455,110	466,652	469,470	446,652
30 to 34 years.....	466,595	469,803	446,108	461,671	465,187	435,896
35 to 44 years.....	913,545	922,298	852,380	900,657	910,369	826,606
45 to 54 years.....	857,620	870,435	763,353	838,679	853,133	725,547
55 to 64 years.....	732,320	749,677	606,476	708,814	727,798	554,105
65 to 74 years.....	511,550	529,322	370,316	496,798	514,232	351,286
75 years and over.....	297,478	306,906	225,411	287,742	296,037	224,990

Source: Data for 1959 derived from *Vital Statistics of the United States, 1959*, section 5. Data for 1949 from "United States Life Tables, 1949-51," *Vital Statistics—Special Reports*, Vol. 41, No. 1, 1954.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years or more	5 years or more
Total experienced civilian labor force									
UNITED STATES									
Total.....	229	143	184	212	247	293	417	385	455
White.....	241	157	191	221	253	301	427	395	466
Nonwhite.....	122	95	123	132	151	162	215	185	246
Ratio of nonwhite to white....	51	61	64	60	60	54	50	47	53
THE NORTH AND WEST									
Total.....	244	169	194	223	252	298	425	395	461
White.....	251	175	198	229	257	305	434	403	470
Nonwhite.....	154	135	144	152	168	179	239	209	269
Ratio of nonwhite to white....	61	77	73	66	65	59	55	52	57
THE SOUTH									
Total.....	192	116	156	184	230	280	390	355	437
White.....	213	133	167	197	240	291	406	369	455
Nonwhite.....	91	77	96	102	115	127	182	154	213
Ratio of nonwhite to white....	43	58	57	52	48	44	45	42	47
Professional, technical, and kindred workers									
UNITED STATES									
Total.....	355	199	227	262	288	300	418	349	469
White.....	363	208	233	268	292	305	428	357	481
Nonwhite.....	206	111	-	150	188	179	238	192	264
Ratio of nonwhite to white....	57	53	-	56	64	59	56	54	55
THE NORTH AND WEST									
Total.....	361	225	239	271	293	306	424	359	472
White.....	367	234	243	276	297	310	431	364	481
Nonwhite.....	236	-	-	171	211	208	275	225	298
Ratio of nonwhite to white....	64	-	-	62	71	67	64	62	62
THE SOUTH									
Total.....	335	159	189	239	268	280	401	320	467
White.....	348	173	200	248	275	289	419	334	491
Nonwhite.....	167	-	-	-	135	131	198	162	224
Ratio of nonwhite to white....	48	-	-	-	49	45	47	49	46
Accountants and auditors									
UNITED STATES									
Total.....	313	-	-	272	286	292	362	361	369
White.....	316	-	-	274	289	295	366	365	374
THE NORTH AND WEST									
Total.....	317	-	-	277	287	293	368	364	383
White.....	320	-	-	280	290	296	373	368	388
THE SOUTH									
Total.....	300	-	-	-	284	288	330	338	319
White.....	303	-	-	-	286	292	335	341	327
Artists and art teachers									
UNITED STATES									
Total.....	302	-	-	300	320	300	299	304	297
White.....	307	-	-	308	326	305	304	311	302
THE NORTH AND WEST									
Total.....	307	-	-	306	321	310	301	310	290
White.....	312	-	-	310	327	315	306	317	294
THE SOUTH									
Total.....	262	-	-	-	-	-	-	-	-
White.....	267	-	-	-	-	-	-	-	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Clergymen									
UNITED STATES									
Total.....	175	-	133	151	156	168	184	180	184
White.....	180	-	-	163	167	174	186	185	186
Nonwhite.....	122	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	68	-	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	174	-	-	-	168	166	179	179	178
White.....	177	-	-	-	-	170	181	181	179
Nonwhite.....	135	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	76	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	174	-	-	-	142	167	196	181	201
White.....	185	-	-	-	-	178	200	189	204
Nonwhite.....	114	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	62	-	-	-	-	-	-	-	-
College presidents and deans									
UNITED STATES									
Total.....	367	-	-	-	-	-	379	-	-
White.....	380	-	-	-	-	-	-	-	-
College professors and instructors									
UNITED STATES									
Total.....	324	-	-	-	-	-	328	269	335
White.....	329	-	-	-	-	-	333	275	340
Nonwhite.....	248	-	-	-	-	-	252	-	-
Ratio of nonwhite to white....	75	-	-	-	-	-	76	-	-
THE NORTH AND WEST									
Total.....	334	-	-	-	-	-	338	279	345
White.....	337	-	-	-	-	-	341	282	348
THE SOUTH									
Total.....	295	-	-	-	-	-	300	-	307
White.....	304	-	-	-	-	-	310	-	317
Dentists									
UNITED STATES									
Total.....	589	-	-	-	-	-	594	-	597
White.....	600	-	-	-	-	-	606	-	610
THE NORTH AND WEST									
Total.....	587	-	-	-	-	-	596	-	598
White.....	598	-	-	-	-	-	608	-	610
THE SOUTH									
Total.....	629	-	-	-	-	-	624	-	652
White.....	636	-	-	-	-	-	631	-	663
Designers and draftsmen									
UNITED STATES									
Total.....	288	-	-	273	289	290	308	306	315
White.....	291	-	-	276	292	294	312	311	319
THE NORTH AND WEST									
Total.....	293	-	-	277	296	298	312	310	317
White.....	296	-	-	280	299	301	316	314	321
THE SOUTH									
Total.....	264	-	-	-	269	253	-	-	-
White.....	268	-	-	-	271	255	-	-	-

— Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Editors and reporters									
UNITED STATES									
Total.....	358	-	-	-	327	333	357	365	357
White.....	363	-	-	-	332	337	362	370	364
THE NORTH AND WEST									
Total.....	343	-	-	-	341	327	386	380	333
White.....	348	-	-	-	345	330	392	386	339
THE SOUTH									
Total.....	341	-	-	-	-	-	339	-	-
White.....	346	-	-	-	-	-	342	-	-
Technical engineers									
UNITED STATES									
Total.....	363	239	271	307	323	339	404	397	417
White.....	367	247	274	311	326	342	408	401	422
THE NORTH AND WEST									
Total.....	369	263	281	315	332	346	407	401	420
White.....	373	-	284	318	335	349	412	405	425
THE SOUTH									
Total.....	341	-	-	283	297	313	390	383	408
White.....	344	-	-	287	300	316	394	386	412
Aeronautical engineers									
UNITED STATES									
Total.....	395	-	-	-	378	374	418	422	-
White.....	399	-	-	-	381	377	423	426	-
THE NORTH AND WEST									
Total.....	395	-	-	-	389	377	416	418	-
White.....	399	-	-	-	392	380	421	422	-
Civil engineers									
UNITED STATES									
Total.....	335	-	-	270	285	310	380	377	387
White.....	339	-	-	274	288	313	384	381	391
THE NORTH AND WEST									
Total.....	347	-	-	290	298	324	384	381	391
White.....	351	-	-	295	301	326	389	385	396
THE SOUTH									
Total.....	308	-	-	-	264	288	370	368	382
White.....	312	-	-	-	266	291	374	371	387
Electrical engineers									
UNITED STATES									
Total.....	372	-	-	318	327	345	406	400	418
White.....	375	-	-	322	330	348	410	404	422
THE NORTH AND WEST									
Total.....	379	-	-	328	331	354	411	403	424
White.....	383	-	-	331	335	357	415	408	429
THE SOUTH									
Total.....	343	-	-	-	310	310	387	389	-
White.....	346	-	-	-	314	313	391	393	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Mechanical engineers									
UNITED STATES									
Total.....	360	-	-	316	339	350	399	390	425
White.....	364	-	-	319	342	354	403	394	432
THE NORTH AND WEST									
Total.....	365	-	-	319	344	355	404	394	433
White.....	369	-	-	322	346	359	408	397	440
THE SOUTH									
Total.....	336	-	-	-	-	-	378	373	-
White.....	340	-	-	-	-	-	381	376	-
Sales engineers									
UNITED STATES									
Total.....	398	-	-	-	371	369	429	438	-
White.....	402	-	-	-	374	372	433	442	-
THE NORTH AND WEST									
Total.....	402	-	-	-	379	375	434	441	-
White.....	405	-	-	-	383	378	438	446	-
THE SOUTH									
Total.....	382	-	-	-	-	-	-	-	-
White.....	385	-	-	-	-	-	-	-	-
Lawyers and judges									
UNITED STATES									
Total.....	621	-	-	-	-	-	642	537	680
White.....	631	-	-	-	-	-	652	546	691
THE NORTH AND WEST									
Total.....	624	-	-	-	-	-	644	536	687
White.....	634	-	-	-	-	-	653	545	697
THE SOUTH									
Total.....	619	-	-	-	-	-	642	516	661
White.....	632	-	-	-	-	-	655	524	676
Musicians and music teachers									
UNITED STATES									
Total.....	237	-	-	217	235	255	260	254	267
White.....	243	-	-	229	246	257	265	262	270
Nonwhite.....	162	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	67	-	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	248	-	-	222	243	267	272	272	276
White.....	252	-	-	235	251	267	276	277	280
THE SOUTH									
Total.....	200	-	-	-	-	-	222	-	-
White.....	210	-	-	-	-	-	226	-	-
Natural scientists									
UNITED STATES									
Total.....	343	-	-	-	272	307	369	343	388
White.....	348	-	-	-	276	311	374	347	393
THE NORTH AND WEST									
Total.....	339	-	-	-	269	306	364	333	387
White.....	344	-	-	-	273	310	369	337	393

— Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Natural scientists--Con.									
THE SOUTH									
Total.....	354	-	-	-	-	-	383	369	390
White.....	360	-	-	-	-	-	389	374	396
Agricultural scientists									
UNITED STATES									
Total.....	256	-	-	-	-	-	-	-	-
White.....	261	-	-	-	-	-	-	-	-
Biological scientists									
UNITED STATES									
Total.....	310	-	-	-	-	-	322	-	-
White.....	317	-	-	-	-	-	330	-	-
Chemists									
UNITED STATES									
Total.....	327	-	-	-	274	300	351	328	371
White.....	331	-	-	-	277	304	355	332	376
THE NORTH AND WEST									
Total.....	326	-	-	-	274	305	349	328	368
White.....	331	-	-	-	277	309	353	332	373
THE SOUTH									
Total.....	329	-	-	-	-	-	355	-	-
White.....	334	-	-	-	-	-	359	-	-
Geologists and geophysicists									
UNITED STATES									
Total.....	446	-	-	-	-	-	470	-	501
White.....	451	-	-	-	-	-	474	-	506
THE NORTH AND WEST									
Total.....	421	-	-	-	-	-	-	-	-
White.....	425	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	470	-	-	-	-	-	-	-	-
White.....	474	-	-	-	-	-	-	-	-
Physicists									
UNITED STATES									
Total.....	415	-	-	-	-	-	431	-	-
White.....	421	-	-	-	-	-	437	-	-
Physicians and surgeons									
UNITED STATES									
Total.....	717	-	-	-	-	-	721	730	727
White.....	736	-	-	-	-	-	740	774	745
Nonwhite.....	377	-	-	-	-	-	379	-	394
Ratio of nonwhite to white....	51	-	-	-	-	-	51	-	53
THE NORTH AND WEST									
Total.....	847	-	-	-	-	-	851	690	861
White.....	873	-	-	-	-	-	876	732	886
THE SOUTH									
Total.....	727	-	-	-	-	-	733	-	739
White.....	748	-	-	-	-	-	755	-	760

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Social scientists									
UNITED STATES									
Total.....	362	-	-	-	319	317	389	410	386
White.....	367	-	-	-	322	321	396	415	394
THE NORTH AND WEST									
Total.....	366	-	-	-	-	-	404	450	394
White.....	371	-	-	-	-	-	411	456	403
THE SOUTH									
Total.....	351	-	-	-	-	-	361	-	376
White.....	358	-	-	-	-	-	366	-	381
Economists									
UNITED STATES									
Total.....	413	-	-	-	-	-	432	-	427
White.....	417	-	-	-	-	-	437	-	433
THE NORTH AND WEST									
Total.....	424	-	-	-	-	-	461	-	-
White.....	428	-	-	-	-	-	465	-	-
THE SOUTH									
Total.....	384	-	-	-	-	-	-	-	-
White.....	389	-	-	-	-	-	-	-	-
Psychologists									
UNITED STATES									
Total.....	335	-	-	-	-	-	345	-	-
White.....	342	-	-	-	-	-	352	-	-
Statisticians and actuaries									
UNITED STATES									
Total.....	335	-	-	-	-	-	387	-	-
White.....	340	-	-	-	-	-	395	-	-
THE NORTH AND WEST									
Total.....	335	-	-	-	-	-	400	-	-
White.....	339	-	-	-	-	-	410	-	-
Teachers									
UNITED STATES									
Total.....	250	-	-	-	219	213	257	222	274
White.....	256	-	-	-	224	220	263	230	279
Nonwhite.....	183	-	-	-	-	-	189	164	213
Ratio of nonwhite to white....	71	-	-	-	-	-	72	71	76
THE NORTH AND WEST									
Total.....	265	-	-	-	227	226	272	241	285
White.....	268	-	-	-	229	230	275	244	289
Nonwhite.....	216	-	-	-	-	-	222	-	240
Ratio of nonwhite to white....	81	-	-	-	-	-	81	-	83
THE SOUTH									
Total.....	211	-	-	-	-	176	217	189	234
White.....	219	-	-	-	-	183	225	199	240
Nonwhite.....	170	-	-	-	-	-	175	156	195
Ratio of nonwhite to white....	78	-	-	-	-	-	78	78	81

— Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.  
[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Elementary school teachers									
UNITED STATES									
Total.....	232	-	-	-	-	181	241	208	262
White.....	239	-	-	-	-	184	259	216	268
Nonwhite.....	178	-	-	-	-	-	182	159	206
Ratio of nonwhite to white....	74	-	-	-	-	-	73	74	77
THE NORTH AND WEST									
Total.....	248	-	-	-	-	195	256	226	272
White.....	251	-	-	-	-	197	260	230	276
THE SOUTH									
Total.....	193	-	-	-	-	-	202	177	224
White.....	202	-	-	-	-	-	211	185	231
Nonwhite.....	162	-	-	-	-	-	167	-	-
Ratio of nonwhite to white....	80	-	-	-	-	-	79	-	-
Secondary school teachers									
UNITED STATES									
Total.....	261	-	-	-	-	228	265	227	281
White.....	267	-	-	-	-	236	270	234	285
Nonwhite.....	193	-	-	-	-	-	197	-	220
Ratio of nonwhite to white....	72	-	-	-	-	-	73	-	77
THE NORTH AND WEST									
Total.....	276	-	-	-	-	248	279	243	292
White.....	278	-	-	-	-	250	282	246	294
THE SOUTH									
Total.....	220	-	-	-	-	-	224	195	242
White.....	228	-	-	-	-	-	232	204	248
Nonwhite.....	180	-	-	-	-	-	184	-	202
Ratio of nonwhite to white....	79	-	-	-	-	-	79	-	81
Technicians (n.e.c.)									
UNITED STATES									
Total.....	251	210	221	243	251	254	294	283	319
White.....	255	219	226	247	254	259	301	289	326
Nonwhite.....	183	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	72	-	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	254	-	227	246	253	257	296	281	316
White.....	257	-	231	250	257	261	302	287	322
Nonwhite.....	196	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	76	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	239	-	-	226	238	247	298	-	-
White.....	245	-	-	232	241	253	307	-	-
Medical and dental technicians									
UNITED STATES									
Total.....	224	-	-	234	222	221	249	-	-
White.....	230	-	-	239	228	227	254	-	-
THE NORTH AND WEST									
Total.....	227	-	-	231	226	228	-	-	-
White.....	232	-	-	237	232	233	-	-	-
THE SOUTH									
Total.....	214	-	-	-	-	-	-	-	-
White.....	221	-	-	-	-	-	-	-	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Electrical and electronic technicians									
UNITED STATES									
Total.....	268	-	-	263	270	263	-	-	-
White.....	271	-	-	265	272	267	-	-	-
THE NORTH AND WEST									
Total.....	270	-	-	266	270	266	-	-	-
White.....	273	-	-	267	273	270	-	-	-
THE SOUTH									
Total.....	259	-	-	-	265	199	-	-	-
White.....	262	-	-	-	267	-	-	-	-
Other engineering and physical science technicians									
UNITED STATES									
Total.....	259	-	227	241	251	270	326	301	-
White.....	263	-	230	245	254	273	331	306	-
THE NORTH AND WEST									
Total.....	261	-	234	247	254	267	327	-	-
White.....	264	-	238	250	257	270	332	-	-
THE SOUTH									
Total.....	255	-	-	218	242	276	-	-	-
White.....	260	-	-	-	245	281	-	-	-
All other professional, technical, and kindred workers									
UNITED STATES									
Total.....	307	172	216	253	285	304	350	342	357
White.....	314	184	223	259	290	310	357	349	365
Nonwhite.....	187	-	-	-	197	-	220	-	235
Ratio of nonwhite to white....	60	-	-	-	68	-	62	-	64
THE NORTH AND WEST									
Total.....	315	201	229	262	290	307	357	350	364
White.....	321	213	235	268	294	313	364	356	370
Nonwhite.....	206	-	-	-	-	-	236	-	-
Ratio of nonwhite to white....	64	-	-	-	-	-	65	-	-
THE SOUTH									
Total.....	285	145	184	234	262	294	332	320	349
White.....	294	155	192	242	268	303	342	330	359
Nonwhite.....	152	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	52	-	-	-	-	-	-	-	-
Farmers and farm managers									
UNITED STATES									
Total.....	140	84	126	147	168	213	267	271	269
White.....	147	97	129	151	169	215	272	276	252
Nonwhite.....	59	42	70	93	147	-	-	-	-
Ratio of nonwhite to white....	40	43	54	62	87	-	-	-	-
THE NORTH AND WEST									
Total.....	156	128	136	159	168	200	240	243	240
White.....	157	130	137	160	169	200	243	246	244
Nonwhite.....	166	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	106	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	114	68	100	130	166	243	344	337	-
White.....	129	80	106	138	171	250	353	345	-
Nonwhite.....	41	39	45	49	-	-	-	-	-
Ratio of nonwhite to white....	32	49	42	36	-	-	-	-	-

— Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Managers, officials, and proprietors, except farm									
UNITED STATES									
Total.....	361	221	267	303	346	414	548	548	550
White.....	368	231	271	308	350	420	557	556	561
Nonwhite.....	181	119	166	171	210	211	255	243	-
Ratio of nonwhite to white....	49	52	61	56	60	50	46	44	-
THE NORTH AND WEST									
Total.....	378	243	282	320	355	423	576	571	591
White.....	384	253	287	326	359	429	586	579	604
Nonwhite.....	206	145	186	187	231	231	271	-	-
Ratio of nonwhite to white....	54	57	65	57	64	54	46	-	-
THE SOUTH									
Total.....	321	200	231	265	322	389	484	492	475
White.....	328	212	236	270	327	395	492	499	484
Nonwhite.....	129	94	-	-	-	-	-	-	-
Ratio of nonwhite to white....	39	44	-	-	-	-	-	-	-
Buyers and department heads, store									
UNITED STATES									
Total.....	336	225	265	294	326	370	433	436	444
White.....	340	-	267	297	329	374	437	440	448
THE NORTH AND WEST									
Total.....	346	-	283	307	334	378	442	449	446
White.....	350	-	286	311	337	382	447	454	451
THE SOUTH									
Total.....	305	-	-	261	308	346	407	-	-
White.....	308	-	-	264	311	350	411	-	-
Inspectors, public administration									
UNITED STATES									
Total.....	246	-	187	247	245	258	275	270	-
White.....	248	-	188	249	247	260	278	273	-
THE NORTH AND WEST									
Total.....	252	-	-	252	251	263	275	-	-
White.....	254	-	-	255	253	265	278	-	-
THE SOUTH									
Total.....	232	-	-	-	232	-	-	-	-
White.....	234	-	-	-	234	-	-	-	-
Officials and administrators (n.e.c.), public administration									
UNITED STATES									
Total.....	281	-	186	238	261	284	347	323	372
White.....	285	-	-	241	263	288	352	327	378
THE NORTH AND WEST									
Total.....	278	-	-	243	262	284	332	313	358
White.....	281	-	-	246	265	288	337	317	365
THE SOUTH									
Total.....	288	-	-	229	260	289	367	335	395
White.....	291	-	-	232	262	292	371	339	399
Managers, officials, and proprietors (n.e.c.)									
UNITED STATES									
Total.....	376	223	272	310	359	437	593	590	604
White.....	384	233	276	315	364	443	603	599	617
Nonwhite.....	180	118	172	170	208	214	252	243	-
Ratio of nonwhite to white....	47	51	62	54	57	48	42	41	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years or more	5 years or more
Managers, officials, and proprietors (n.e.c.)--Con.									
THE NORTH AND WEST									
Total.....	395	247	289	329	368	446	621	616	635
White.....	401	255	294	335	373	453	632	625	650
Nonwhite.....	212	155	201	190	231	237	275	-	-
Ratio of nonwhite to white....	53	61	68	57	62	52	44	-	-
THE SOUTH									
Total.....	331	200	231	268	334	413	523	526	524
White.....	339	213	236	274	340	420	532	534	534
Nonwhite.....	124	90	-	-	-	-	-	-	-
Ratio of nonwhite to white....	37	42	-	-	-	-	-	-	-
Other managers, officials, and proprietors, except farm									
UNITED STATES									
Total.....	283	214	246	275	287	301	334	332	370
White.....	288	227	254	280	291	305	338	335	379
Nonwhite.....	152	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	53	-	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	287	195	239	280	292	305	336	333	352
White.....	293	210	249	286	296	309	340	337	358
Nonwhite.....	143	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	49	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	271	213	252	263	274	291	335	332	-
White.....	275	218	255	265	278	294	338	336	-
Clerical and kindred workers									
UNITED STATES									
Total.....	213	169	190	203	218	225	262	258	270
White.....	218	176	194	208	222	229	268	264	276
Nonwhite.....	162	129	145	158	172	176	186	182	-
Ratio of nonwhite to white....	74	73	75	76	77	77	69	69	-
THE NORTH AND WEST									
Total.....	217	180	194	207	222	228	263	261	268
White.....	221	185	197	211	226	232	269	266	274
Nonwhite.....	170	146	153	164	177	179	189	-	-
Ratio of nonwhite to white....	77	79	78	78	78	77	70	-	-
THE SOUTH									
Total.....	201	152	175	189	207	218	259	252	277
White.....	208	161	181	195	211	223	267	260	283
Nonwhite.....	144	113	-	145	156	164	-	-	-
Ratio of nonwhite to white....	69	70	-	74	74	74	-	-	-
Bank tellers									
UNITED STATES									
Total.....	202	-	-	-	206	199	-	-	-
White.....	204	-	-	-	208	201	-	-	-
THE NORTH AND WEST									
Total.....	204	-	-	-	208	-	-	-	-
White.....	206	-	-	-	210	-	-	-	-
THE SOUTH									
Total.....	196	-	-	-	-	-	-	-	-
White.....	197	-	-	-	-	-	-	-	-

— Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.  
[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Bookkeepers									
UNITED STATES									
Total.....	204	-	-	194	207	203	213	216	-
White.....	206	-	-	197	209	205	215	218	-
THE NORTH AND WEST									
Total.....	209	-	-	199	213	208	219	223	-
White.....	211	-	-	202	215	210	220	224	-
THE SOUTH									
Total.....	193	-	-	181	195	192	-	-	-
White.....	195	-	-	183	197	194	-	-	-
Mail carriers									
UNITED STATES									
Total.....	213	185	197	212	219	217	204	206	-
White.....	216	186	200	214	222	220	-	-	-
Nonwhite.....	192	-	-	-	194	-	-	-	-
Ratio of nonwhite to white....	89	-	-	-	87	-	-	-	-
THE NORTH AND WEST									
Total.....	214	-	196	213	219	214	-	-	-
White.....	216	-	198	215	222	217	-	-	-
Nonwhite.....	196	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	91	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	211	-	-	207	219	222	-	-	-
White.....	214	-	-	211	223	224	-	-	-
Nonwhite.....	187	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	87	-	-	-	-	-	-	-	-
Office machine operators									
UNITED STATES									
Total.....	228	-	-	212	240	224	-	-	-
White.....	232	-	-	216	244	229	-	-	-
THE NORTH AND WEST									
Total.....	228	-	-	214	247	220	-	-	-
White.....	231	-	-	218	252	224	-	-	-
THE SOUTH									
Total.....	217	-	-	-	216	-	-	-	-
White.....	222	-	-	-	218	-	-	-	-
Postal clerks									
UNITED STATES									
Total.....	217	-	210	215	224	215	219	219	-
White.....	221	-	217	219	228	218	217	220	-
Nonwhite.....	194	-	-	-	197	195	-	-	-
Ratio of nonwhite to white....	88	-	-	-	86	89	-	-	-
THE NORTH AND WEST									
Total.....	217	-	209	214	224	214	219	222	-
White.....	221	-	216	217	229	216	217	-	-
Nonwhite.....	194	-	-	-	197	-	-	-	-
Ratio of nonwhite to white....	88	-	-	-	86	-	-	-	-
THE SOUTH									
Total.....	218	-	-	217	223	219	-	-	-
White.....	223	-	-	222	227	225	-	-	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Shipping and receiving clerks									
UNITED STATES									
Total.....	183	168	182	185	190	182	-	-	-
White.....	189	174	186	190	195	186	-	-	-
Nonwhite.....	142	133	-	145	146	-	-	-	-
Ratio of nonwhite to white....	75	76	-	76	75	-	-	-	-
THE NORTH AND WEST									
Total.....	189	177	185	191	194	186	-	-	-
White.....	194	182	189	195	199	189	-	-	-
Nonwhite.....	151	-	-	154	153	-	-	-	-
Ratio of nonwhite to white....	78	-	-	79	77	-	-	-	-
THE SOUTH									
Total.....	161	148	162	161	173	-	-	-	-
White.....	168	156	167	168	180	-	-	-	-
Nonwhite.....	121	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	72	-	-	-	-	-	-	-	-
All other clerical and kindred workers									
UNITED STATES									
Total.....	217	168	189	205	222	231	272	268	280
White.....	222	175	194	209	226	236	278	274	286
Nonwhite.....	152	124	140	149	163	167	176	-	-
Ratio of nonwhite to white....	68	71	72	71	72	71	63	-	-
THE NORTH AND WEST									
Total.....	221	179	195	209	226	235	273	270	278
White.....	225	184	199	214	230	239	278	275	284
Nonwhite.....	161	142	150	154	169	172	-	-	-
Ratio of nonwhite to white....	72	77	75	72	73	72	-	-	-
THE SOUTH									
Total.....	204	150	173	190	209	223	272	265	286
White.....	211	160	178	196	213	228	280	273	292
Nonwhite.....	133	109	-	138	145	150	-	-	-
Ratio of nonwhite to white....	63	68	-	70	68	66	-	-	-
Sales workers									
UNITED STATES									
Total.....	270	167	206	232	265	306	387	387	392
White.....	274	173	209	235	269	310	392	392	397
Nonwhite.....	152	101	-	147	175	183	-	-	-
Ratio of nonwhite to white....	55	58	-	63	65	59	-	-	-
THE NORTH AND WEST									
Total.....	282	191	218	244	275	313	395	400	378
White.....	286	197	221	248	278	317	400	404	384
Nonwhite.....	176	-	-	164	189	204	-	-	-
Ratio of nonwhite to white....	62	-	-	66	68	64	-	-	-
THE SOUTH									
Total.....	236	142	177	200	238	283	363	345	372
White.....	240	147	181	203	241	287	369	351	377
Nonwhite.....	106	88	-	-	-	-	-	-	-
Ratio of nonwhite to white....	44	60	-	-	-	-	-	-	-
Insurance agents, brokers, and underwriters									
UNITED STATES									
Total.....	320	220	258	276	298	339	406	411	390
White.....	326	225	262	280	303	346	414	420	396
Nonwhite.....	181	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	56	-	-	-	-	-	-	-	-

—Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Insurance agents, brokers, and underwriters--Con.									
THE NORTH AND WEST									
Total.....	336	-	-	302	314	343	423	434	400
White.....	341	-	-	305	318	348	430	442	407
THE SOUTH									
Total.....	285	-	-	239	262	333	361	356	-
White.....	293	-	-	244	268	343	371	367	-
Real estate agents and brokers									
UNITED STATES									
Total.....	359	-	306	292	337	370	459	468	416
White.....	366	-	310	296	342	377	468	478	419
THE NORTH AND WEST									
Total.....	367	-	-	303	343	371	485	519	394
White.....	373	-	-	309	348	379	494	528	399
THE SOUTH									
Total.....	342	-	-	-	301	378	412	394	-
White.....	348	-	-	-	304	385	423	-	-
Salesmen and sales clerks (n.e.c.)									
UNITED STATES									
Total.....	257	163	201	227	258	295	371	368	362
White.....	261	169	204	230	261	299	375	372	367
Nonwhite.....	143	102	-	144	164	166	-	-	-
Ratio of nonwhite to white....	55	60	-	63	63	56	-	-	-
THE NORTH AND WEST									
Total.....	270	187	213	239	266	304	375	376	356
White.....	273	192	216	243	270	308	379	380	360
Nonwhite.....	163	-	-	158	173	-	-	-	-
Ratio of nonwhite to white....	60	-	-	65	64	-	-	-	-
THE SOUTH									
Total.....	224	140	170	194	232	269	363	340	378
White.....	228	146	174	198	235	272	368	344	382
Nonwhite.....	102	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	45	-	-	-	-	-	-	-	-
All other sales workers									
UNITED STATES									
Total.....	278	117	181	217	265	319	443	453	-
White.....	284	122	189	222	269	319	450	459	-
THE NORTH AND WEST									
Total.....	296	-	198	230	276	332	477	478	-
White.....	301	-	205	236	279	332	485	485	-
THE SOUTH									
Total.....	229	-	-	-	225	268	-	-	-
White.....	237	-	-	-	232	272	-	-	-
Craftsmen, foremen, and kindred workers									
UNITED STATES									
Total.....	223	177	207	225	243	253	323	316	346
White.....	229	185	211	230	247	258	330	320	353
Nonwhite.....	141	118	140	148	166	167	188	-	-
Ratio of nonwhite to white....	62	64	66	64	67	65	57	-	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Craftsmen, foremen, and kindred workers--Con.									
THE NORTH AND WEST									
Total.....	236	202	217	236	249	260	329	322	354
White.....	240	207	220	239	253	264	335	327	360
Nonwhite.....	171	155	163	170	184	189	-	-	-
Ratio of nonwhite to white....	71	75	74	71	73	72	-	-	-
THE SOUTH									
Total.....	188	150	178	195	219	230	306	300	322
White.....	197	160	184	202	225	239	315	310	329
Nonwhite.....	106	97	106	114	124	121	-	-	-
Ratio of nonwhite to white....	54	61	58	56	55	51	-	-	-
Brickmasons, stonemasons, and tile setters									
UNITED STATES									
Total.....	209	170	204	218	233	250	-	-	-
White.....	221	187	210	228	243	268	-	-	-
Nonwhite.....	126	107	-	-	-	-	-	-	-
Ratio of nonwhite to white....	57	57	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	229	202	218	233	244	-	-	-	-
White.....	235	214	220	237	249	-	-	-	-
Nonwhite.....	163	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	69	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	168	136	168	189	200	-	-	-	-
White.....	187	155	181	208	221	-	-	-	-
Nonwhite.....	107	96	-	-	-	-	-	-	-
Ratio of nonwhite to white....	57	62	-	-	-	-	-	-	-
Carpenters									
UNITED STATES									
Total.....	185	145	178	193	209	207	224	229	-
White.....	190	152	182	197	212	211	232	-	-
Nonwhite.....	112	91	116	121	147	-	-	-	-
Ratio of nonwhite to white....	59	60	64	61	69	-	-	-	-
THE NORTH AND WEST									
Total.....	209	187	196	215	220	220	237	-	-
White.....	211	190	199	217	223	222	242	-	-
Nonwhite.....	164	138	-	-	-	-	-	-	-
Ratio of nonwhite to white....	78	73	-	-	-	-	-	-	-
THE SOUTH									
Total.....	139	120	139	148	167	163	-	-	-
White.....	146	127	145	154	172	170	-	-	-
Nonwhite.....	81	79	-	84	-	-	-	-	-
Ratio of nonwhite to white....	55	62	-	55	-	-	-	-	-
Cement and concrete finishers									
UNITED STATES									
Total.....	196	163	205	207	237	-	-	-	-
White.....	222	194	223	226	-	-	-	-	-
Nonwhite.....	126	115	-	-	-	-	-	-	-
Ratio of nonwhite to white....	57	59	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	226	213	222	228	-	-	-	-	-
White.....	236	227	230	238	-	-	-	-	-
Nonwhite.....	161	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	68	-	-	-	-	-	-	-	-

— Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Cement and concrete finishers--Con.									
THE SOUTH									
Total.....	138	122	-	-	-	-	-	-	-
White.....	168	-	-	-	-	-	-	-	-
Nonwhite.....	110	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	65	-	-	-	-	-	-	-	-
Compositors and typesetters									
UNITED STATES									
Total.....	247	205	229	247	254	248	-	-	-
White.....	250	207	233	250	257	251	-	-	-
THE NORTH AND WEST									
Total.....	252	-	235	254	258	251	-	-	-
White.....	256	-	239	256	261	254	-	-	-
THE SOUTH									
Total.....	224	-	-	220	239	-	-	-	-
White.....	229	-	-	225	242	-	-	-	-
Electricians									
UNITED STATES									
Total.....	251	215	236	251	257	259	-	-	-
White.....	254	219	239	254	259	263	-	-	-
Nonwhite.....	189	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	74	-	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	261	239	245	260	266	268	-	-	-
White.....	264	241	248	263	269	272	-	-	-
THE SOUTH									
Total.....	223	196	217	228	228	231	-	-	-
White.....	226	200	219	231	230	235	-	-	-
Foremen (n.e.c.)									
UNITED STATES									
Total.....	282	230	259	278	293	313	372	362	406
White.....	286	234	262	281	296	316	376	366	411
Nonwhite.....	196	167	-	196	-	-	-	-	-
Ratio of nonwhite to white....	69	71	-	70	-	-	-	-	-
THE NORTH AND WEST									
Total.....	292	246	269	287	300	318	379	369	418
White.....	296	251	272	291	303	322	384	373	423
Nonwhite.....	212	-	-	205	-	-	-	-	-
Ratio of nonwhite to white....	72	-	-	70	-	-	-	-	-
THE SOUTH									
Total.....	252	209	226	249	270	293	349	340	-
White.....	256	214	229	252	273	297	352	343	-
Nonwhite.....	157	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	61	-	-	-	-	-	-	-	-
Linemen and servicemen, telegraph, telephone, and power									
UNITED STATES									
Total.....	253	206	228	251	263	272	-	-	-
White.....	256	216	231	254	266	275	-	-	-
THE NORTH AND WEST									
Total.....	259	234	233	258	267	272	-	-	-
White.....	262	237	236	261	269	275	-	-	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Linemen and servicemen, telegraph, telephone, and power--Con.									
THE SOUTH									
Total.....	234	186	216	235	252	-	-	-	-
White.....	239	198	219	239	254	-	-	-	-
Locomotive engineers									
UNITED STATES									
Total.....	298	-	241	292	307	-	-	-	-
White.....	300	-	242	294	310	-	-	-	-
THE NORTH AND WEST									
Total.....	293	-	-	282	312	-	-	-	-
White.....	295	-	-	285	315	-	-	-	-
THE SOUTH									
Total.....	300	-	-	-	-	-	-	-	-
White.....	303	-	-	-	-	-	-	-	-
Machinists									
UNITED STATES									
Total.....	229	201	215	230	239	239	-	-	-
White.....	232	206	218	233	242	242	-	-	-
Nonwhite.....	173	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	75	-	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	233	212	217	233	242	240	-	-	-
White.....	236	216	219	235	244	243	-	-	-
Nonwhite.....	183	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	78	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	213	182	204	217	227	-	-	-	-
White.....	217	187	210	221	230	-	-	-	-
Mechanics and repairmen									
UNITED STATES									
Total.....	201	167	191	204	216	220	236	237	231
White.....	206	174	195	208	220	225	242	243	239
Nonwhite.....	140	117	136	145	163	-	-	-	-
Ratio of nonwhite to white....	68	67	70	70	74	-	-	-	-
THE NORTH AND WEST									
Total.....	211	186	199	212	222	225	237	237	235
White.....	214	191	202	215	225	229	241	241	245
Nonwhite.....	164	147	154	163	178	-	-	-	-
Ratio of nonwhite to white....	77	77	76	76	79	-	-	-	-
THE SOUTH									
Total.....	175	146	168	182	197	206	-	-	-
White.....	183	155	174	188	202	212	-	-	-
Nonwhite.....	105	98	104	109	120	-	-	-	-
Ratio of nonwhite to white....	57	63	60	58	59	-	-	-	-
Airplane mechanics and repairmen									
UNITED STATES									
Total.....	248	206	229	245	253	273	-	-	-
White.....	252	212	233	248	257	277	-	-	-
THE NORTH AND WEST									
Total.....	257	-	238	254	262	275	-	-	-
White.....	261	-	241	257	265	280	-	-	-

— Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Airplane mechanics and repairmen--Con.									
THE SOUTH									
Total.....	231	-	-	229	236	-	-	-	-
White.....	235	-	-	232	240	-	-	-	-
Automobile mechanics and repairmen									
UNITED STATES									
Total.....	187	156	182	195	204	199	-	-	-
White.....	192	164	186	199	207	201	-	-	-
Nonwhite.....	132	108	133	140	168	-	-	-	-
Ratio of nonwhite to white....	69	66	72	70	81	-	-	-	-
THE NORTH AND WEST									
Total.....	201	182	192	205	213	204	-	-	-
White.....	204	186	195	209	216	206	-	-	-
Nonwhite.....	164	-	157	164	186	-	-	-	-
Ratio of nonwhite to white....	80	-	81	78	86	-	-	-	-
THE SOUTH									
Total.....	153	133	154	166	172	181	-	-	-
White.....	161	142	160	172	177	184	-	-	-
Nonwhite.....	96	90	-	100	-	-	-	-	-
Ratio of nonwhite to white....	60	63	-	58	-	-	-	-	-
Radio and television mechanics and repairmen									
UNITED STATES									
Total.....	183	137	155	180	196	199	-	-	-
White.....	187	139	159	184	199	202	-	-	-
THE NORTH AND WEST									
Total.....	194	-	166	187	206	206	-	-	-
White.....	197	-	168	191	210	207	-	-	-
THE SOUTH									
Total.....	159	-	-	163	171	-	-	-	-
White.....	164	-	-	168	174	-	-	-	-
Painters, construction and maintenance									
UNITED STATES									
Total.....	167	136	167	173	189	182	-	-	-
White.....	173	142	171	178	194	190	-	-	-
Nonwhite.....	107	92	-	108	-	-	-	-	-
Ratio of nonwhite to white....	62	65	-	61	-	-	-	-	-
THE NORTH AND WEST									
Total.....	184	157	180	187	200	196	-	-	-
White.....	189	161	183	192	204	202	-	-	-
Nonwhite.....	132	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	70	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	134	118	136	141	157	-	-	-	-
White.....	141	125	141	148	164	-	-	-	-
Nonwhite.....	83	75	-	-	-	-	-	-	-
Ratio of nonwhite to white....	59	60	-	-	-	-	-	-	-
Plasterers									
UNITED STATES									
Total.....	206	162	197	223	239	-	-	-	-
White.....	223	184	210	238	249	-	-	-	-
Nonwhite.....	124	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	56	-	-	-	-	-	-	-	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Plasterers--Con.									
THE NORTH AND WEST									
Total.....	223	185	208	237	248	-	-	-	-
White.....	232	195	215	247	253	-	-	-	-
THE SOUTH									
Total.....	166	133	-	-	-	-	-	-	-
White.....	196	-	-	-	-	-	-	-	-
Nonwhite.....	103	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	53	-	-	-	-	-	-	-	-
Plumbers and pipe fitters									
UNITED STATES									
Total.....	236	195	222	242	252	258	-	-	-
White.....	241	206	227	246	256	263	-	-	-
Nonwhite.....	141	113	-	-	-	-	-	-	-
Ratio of nonwhite to white....	59	55	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	252	238	238	255	259	267	-	-	-
White.....	255	244	241	258	262	270	-	-	-
Nonwhite.....	196	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	77	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	197	163	186	208	227	-	-	-	-
White.....	207	176	192	214	233	-	-	-	-
Nonwhite.....	103	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	50	-	-	-	-	-	-	-	-
Toolmakers, and die makers and setters									
UNITED STATES									
Total.....	276	244	264	271	282	288	-	-	-
White.....	279	248	266	274	285	291	-	-	-
THE NORTH AND WEST									
Total.....	280	246	266	275	285	292	-	-	-
White.....	282	251	269	277	288	295	-	-	-
THE SOUTH									
Total.....	233	-	-	-	-	-	-	-	-
White.....	235	-	-	-	-	-	-	-	-
Other construction craftsmen									
UNITED STATES									
Total.....	206	172	204	212	230	229	-	-	-
White.....	211	180	208	216	234	232	-	-	-
Nonwhite.....	133	113	-	-	-	-	-	-	-
Ratio of nonwhite to white....	63	63	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	225	201	217	228	237	245	-	-	-
White.....	228	205	220	231	240	247	-	-	-
Nonwhite.....	172	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	75	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	168	149	174	174	203	-	-	-	-
White.....	175	158	178	179	209	-	-	-	-
Nonwhite.....	108	100	-	-	-	-	-	-	-
Ratio of nonwhite to white....	62	63	-	-	-	-	-	-	-

— Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Other metal craftsmen									
UNITED STATES									
Total.....	232	202	220	237	250	244	-	-	-
White.....	237	208	223	241	254	250	-	-	-
Nonwhite.....	171	168	-	174	-	-	-	-	-
Ratio of nonwhite to white....	72	81	-	72	-	-	-	-	-
THE NORTH AND WEST									
Total.....	239	215	226	242	255	249	-	-	-
White.....	244	221	229	247	258	254	-	-	-
Nonwhite.....	180	179	-	182	-	-	-	-	-
Ratio of nonwhite to white....	74	81	-	74	-	-	-	-	-
THE SOUTH									
Total.....	203	175	193	214	225	-	-	-	-
White.....	208	181	196	218	230	-	-	-	-
Nonwhite.....	135	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	65	-	-	-	-	-	-	-	-
Other printing craftsmen									
UNITED STATES									
Total.....	268	230	252	275	276	258	-	-	-
White.....	272	235	256	279	280	262	-	-	-
THE NORTH AND WEST									
Total.....	274	-	252	281	282	266	-	-	-
White.....	277	-	255	285	285	270	-	-	-
THE SOUTH									
Total.....	242	-	-	244	243	-	-	-	-
White.....	247	-	-	249	246	-	-	-	-
All other craftsmen, foremen, and kindred workers									
UNITED STATES									
Total.....	225	183	204	218	235	259	362	352	390
White.....	230	189	208	223	239	265	367	357	395
Nonwhite.....	149	134	145	153	164	-	-	-	-
Ratio of nonwhite to white....	65	71	70	69	69	-	-	-	-
THE NORTH AND WEST									
Total.....	235	201	212	226	241	268	366	355	395
White.....	239	205	215	230	244	272	370	359	400
Nonwhite.....	173	164	-	171	-	-	-	-	-
Ratio of nonwhite to white....	72	80	-	74	-	-	-	-	-
THE SOUTH									
Total.....	197	162	178	193	215	230	353	362	-
White.....	205	170	185	200	222	238	360	368	-
Nonwhite.....	119	114	-	127	-	-	-	-	-
Ratio of nonwhite to white....	58	67	-	64	-	-	-	-	-
Operatives and kindred workers									
UNITED STATES									
Total.....	188	154	186	197	210	216	229	229	228
White.....	196	165	191	203	215	222	236	237	234
Nonwhite.....	129	111	135	141	151	157	-	-	-
Ratio of nonwhite to white....	66	67	71	69	70	71	-	-	-
THE NORTH AND WEST									
Total.....	202	178	195	206	216	218	228	228	228
White.....	206	183	199	211	220	223	233	233	233
Nonwhite.....	158	148	157	161	169	171	-	-	-
Ratio of nonwhite to white....	77	81	79	76	77	77	-	-	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Operatives and kindred workers--Con.									
THE SOUTH									
Total.....	152	127	155	166	186	199	233	240	-
White.....	165	140	163	176	195	210	252	262	-
Nonwhite.....	100	91	107	109	116	122	-	-	-
Ratio of nonwhite to white....	61	65	66	62	59	58	-	-	-
Bus drivers									
UNITED STATES									
Total.....	172	137	172	176	196	181	-	-	-
White.....	176	146	175	182	198	179	-	-	-
Nonwhite.....	133	-	-	135	-	-	-	-	-
Ratio of nonwhite to white....	76	-	-	74	-	-	-	-	-
THE NORTH AND WEST									
Total.....	192	172	188	200	203	186	-	-	-
White.....	191	169	189	200	204	181	-	-	-
Nonwhite.....	187	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	98	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	135	111	135	144	175	-	-	-	-
White.....	145	123	140	153	182	-	-	-	-
Nonwhite.....	83	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	57	-	-	-	-	-	-	-	-
Mine operatives and laborers (n.e.c.)									
UNITED STATES									
Total.....	180	152	173	196	212	268	-	-	-
White.....	183	155	176	199	216	274	-	-	-
Nonwhite.....	132	122	-	-	-	-	-	-	-
Ratio of nonwhite to white....	72	79	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	187	162	177	197	208	258	-	-	-
White.....	189	165	178	197	210	264	-	-	-
THE SOUTH									
Total.....	176	148	170	195	217	-	-	-	-
White.....	180	151	173	200	223	-	-	-	-
Nonwhite.....	124	120	-	-	-	-	-	-	-
Ratio of nonwhite to white....	69	79	-	-	-	-	-	-	-
Truck and tractor drivers									
UNITED STATES									
Total.....	185	146	189	202	212	211	-	-	-
White.....	197	162	196	214	219	217	-	-	-
Nonwhite.....	114	97	127	130	139	-	-	-	-
Ratio of nonwhite to white....	58	60	65	61	63	-	-	-	-
THE NORTH AND WEST									
Total.....	210	183	204	220	225	221	-	-	-
White.....	215	189	208	226	229	225	-	-	-
Nonwhite.....	154	140	158	156	167	-	-	-	-
Ratio of nonwhite to white....	72	74	76	69	73	-	-	-	-
THE SOUTH									
Total.....	138	117	147	160	167	176	-	-	-
White.....	155	132	158	175	179	188	-	-	-
Nonwhite.....	94	86	106	106	114	-	-	-	-
Ratio of nonwhite to white....	61	65	67	61	64	-	-	-	-

— Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	4 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Operatives and kindred workers (n.e.c.)									
UNITED STATES									
Total.....	190	159	188	198	212	218	239	236	249
White.....	196	167	192	204	217	225	246	243	256
Nonwhite.....	137	120	143	150	158	164	-	-	-
Ratio of nonwhite to white....	70	72	74	74	73	73	-	-	-
THE NORTH AND WEST									
Total.....	200	178	194	205	216	219	239	233	253
White.....	204	181	197	210	219	224	245	240	259
Nonwhite.....	162	153	160	167	172	175	-	-	-
Ratio of nonwhite to white....	79	85	81	80	79	78	-	-	-
THE SOUTH									
Total.....	157	131	161	171	197	210	253	-	-
White.....	169	143	168	181	206	221	-	-	-
Nonwhite.....	105	97	113	116	122	-	-	-	-
Ratio of nonwhite to white....	62	68	67	64	59	-	-	-	-
All other operatives and kindred workers									
UNITED STATES									
Total.....	189	156	184	194	209	211	217	222	200
White.....	196	166	189	200	214	218	223	229	204
Nonwhite.....	130	112	132	138	149	148	-	-	-
Ratio of nonwhite to white....	66	67	70	69	70	68	-	-	-
THE NORTH AND WEST									
Total.....	201	178	193	202	215	217	220	226	202
White.....	205	183	197	207	219	222	224	230	206
Nonwhite.....	154	146	151	155	165	162	-	-	-
Ratio of nonwhite to white....	75	80	77	75	75	73	-	-	-
THE SOUTH									
Total.....	153	128	152	164	180	185	-	-	-
White.....	164	140	160	172	189	196	-	-	-
Nonwhite.....	98	89	103	106	112	-	-	-	-
Ratio of nonwhite to white....	60	64	64	62	59	-	-	-	-
Service workers, including private household									
UNITED STATES									
Total.....	157	122	147	160	181	183	203	201	207
White.....	170	133	157	173	192	194	217	216	216
Nonwhite.....	109	98	108	113	123	127	136	-	-
Ratio of nonwhite to white....	64	74	69	65	64	65	63	-	-
THE NORTH AND WEST									
Total.....	168	136	155	170	188	189	211	212	207
White.....	176	141	161	178	195	197	219	221	213
Nonwhite.....	126	118	121	129	137	139	-	-	-
Ratio of nonwhite to white....	72	84	75	72	70	71	-	-	-
THE SOUTH									
Total.....	127	103	122	133	155	159	170	-	-
White.....	149	118	138	154	178	178	-	-	-
Nonwhite.....	90	84	91	92	101	109	-	-	-
Ratio of nonwhite to white....	60	71	66	60	57	61	-	-	-
Barbers									
UNITED STATES									
Total.....	180	159	184	186	189	177	-	-	-
White.....	189	164	189	195	196	193	-	-	-
Nonwhite.....	113	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	60	-	-	-	-	-	-	-	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Barbers--Con.									
THE NORTH AND WEST									
Total.....	192	169	196	198	197	190	-	-	-
White.....	197	171	200	205	201	-	-	-	-
Nonwhite.....	137	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	70	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	154	144	153	159	166	-	-	-	-
White.....	167	154	162	171	181	-	-	-	-
Nonwhite.....	91	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	54	-	-	-	-	-	-	-	-
Protective service workers									
UNITED STATES									
Total.....	206	157	186	204	221	228	260	253	270
White.....	209	160	188	207	224	231	266	260	275
Nonwhite.....	167	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	80	-	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	216	166	194	212	227	235	264	259	270
White.....	218	171	197	215	230	238	270	265	-
Nonwhite.....	177	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	81	-	-	-	-	-	-	-	-
THE SOUTH									
Total.....	179	146	162	181	198	202	-	-	-
White.....	182	149	164	183	200	206	-	-	-
Nonwhite.....	141	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	77	-	-	-	-	-	-	-	-
Firemen, fire protection									
UNITED STATES									
Total.....	233	192	215	228	244	259	-	-	-
White.....	235	199	217	230	246	262	-	-	-
Nonwhite.....	200	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	85	-	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	242	-	227	237	250	267	-	-	-
White.....	244	-	229	238	252	269	-	-	-
THE SOUTH									
Total.....	206	201	-	209	220	-	-	-	-
White.....	208	204	-	211	222	-	-	-	-
Policemen and detectives									
UNITED STATES									
Total.....	224	168	192	217	230	246	296	286	-
White.....	226	172	194	220	233	250	301	-	-
Nonwhite.....	187	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	83	-	-	-	-	-	-	-	-
THE NORTH AND WEST									
Total.....	233	181	197	228	237	252	298	-	-
White.....	236	186	200	231	239	255	303	-	-
THE SOUTH									
Total.....	194	156	172	185	205	-	-	-	-
White.....	196	158	174	186	207	-	-	-	-

— Represents zero.

Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
All other service workers, including private household									
UNITED STATES									
Total.....	135	115	135	140	154	152	160	163	156
White.....	147	125	144	152	167	164	170	176	162
Nonwhite.....	106	97	107	111	117	119	-	-	-
Ratio of nonwhite to white....	72	78	74	73	70	73	-	-	-
THE NORTH AND WEST									
Total.....	146	130	143	150	162	158	168	176	157
White.....	152	134	148	157	169	165	174	184	-
Nonwhite.....	122	117	119	125	129	128	-	-	-
Ratio of nonwhite to white....	80	87	80	80	76	78	-	-	-
THE SOUTH									
Total.....	105	94	105	108	127	133	-	-	-
White.....	121	103	116	124	152	154	-	-	-
Nonwhite.....	89	83	90	91	98	105	-	-	-
Ratio of nonwhite to white....	74	81	78	73	64	68	-	-	-
Farm laborers and foremen									
UNITED STATES									
Total.....	80	62	90	103	128	151	192	-	-
White.....	91	70	96	111	134	155	200	-	-
Nonwhite.....	49	45	56	62	86	-	-	-	-
Ratio of nonwhite to white....	54	64	58	56	64	-	-	-	-
THE NORTH AND WEST									
Total.....	100	81	100	115	134	150	-	-	-
White.....	102	82	102	117	136	152	-	-	-
Nonwhite.....	84	74	76	90	-	-	-	-	-
Ratio of nonwhite to white....	82	90	75	77	-	-	-	-	-
THE SOUTH									
Total.....	58	50	67	81	113	-	-	-	-
White.....	71	58	75	95	130	-	-	-	-
Nonwhite.....	42	40	46	47	-	-	-	-	-
Ratio of nonwhite to white....	59	69	61	49	-	-	-	-	-
Farm laborers, wage workers									
UNITED STATES									
Total.....	76	60	88	97	117	138	167	-	-
White.....	87	68	93	105	121	141	-	-	-
Nonwhite.....	49	45	55	59	77	-	-	-	-
Ratio of nonwhite to white....	56	66	59	56	64	-	-	-	-
THE NORTH AND WEST									
Total.....	96	79	98	110	123	142	-	-	-
White.....	98	80	100	113	125	144	-	-	-
Nonwhite.....	79	73	73	83	-	-	-	-	-
Ratio of nonwhite to white....	81	91	73	73	-	-	-	-	-
THE SOUTH									
Total.....	55	49	63	72	96	-	-	-	-
White.....	65	57	70	84	110	-	-	-	-
Nonwhite.....	42	40	45	47	-	-	-	-	-
Ratio of nonwhite to white....	65	70	64	56	-	-	-	-	-
All other farm laborers and foremen									
UNITED STATES									
Total.....	138	96	124	150	195	-	-	-	-
White.....	144	106	126	153	198	-	-	-	-
Nonwhite.....	90	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	63	-	-	-	-	-	-	-	-

— Represents zero.



Table E-2.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND SELECTED OCCUPATIONS, BY REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
All other farm laborers and foremen--Con.									
THE NORTH AND WEST									
Total.....	158	130	128	156	191	-	-	-	-
White.....	156	131	128	154	190	-	-	-	-
THE SOUTH									
Total.....	118	76	-	-	-	-	-	-	-
White.....	132	86	-	-	-	-	-	-	-
Laborers, except farm and mine									
UNITED STATES									
Total.....	143	118	150	157	173	174	189	192	-
White.....	157	131	158	168	182	185	199	204	-
Nonwhite.....	105	95	115	118	128	128	-	-	-
Ratio of nonwhite to white....	67	93	73	70	70	69	-	-	-
THE NORTH AND WEST									
Total.....	163	147	161	170	181	180	193	196	-
White.....	169	152	165	175	186	186	197	200	-
Nonwhite.....	135	129	134	141	146	144	-	-	-
Ratio of nonwhite to white....	80	85	81	81	78	77	-	-	-
THE SOUTH									
Total.....	105	92	114	119	141	158	-	-	-
White.....	118	99	122	135	159	183	-	-	-
Nonwhite.....	87	82	97	95	105	111	-	-	-
Ratio of nonwhite to white....	74	83	80	70	66	61	-	-	-
Occupation not reported									
UNITED STATES									
Total.....	215	157	185	205	239	281	360	345	386
White.....	232	173	194	218	251	294	375	359	400
Nonwhite.....	133	118	133	137	145	167	180	-	-
Ratio of nonwhite to white....	57	68	69	63	58	57	48	-	-
THE NORTH AND WEST									
Total.....	225	171	192	213	245	281	366	350	395
White.....	239	181	200	225	256	293	379	364	407
Nonwhite.....	148	138	143	148	155	176	-	-	-
Ratio of nonwhite to white....	62	76	72	66	61	60	-	-	-
THE SOUTH									
Total.....	187	133	159	183	217	259	345	330	359
White.....	213	154	172	198	233	274	364	347	383
Nonwhite.....	107	96	112	113	116	-	-	-	-
Ratio of nonwhite to white....	50	62	65	57	50	-	-	-	-

— Represents zero.

Source: Unpublished data of the Bureau of the Census.

Table E-3.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND MAJOR OCCUPATION GROUP, FOR THE NORTH AND WEST REGIONS

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Total experienced civilian labor force									
THE NORTH									
Total.....	240	171	192	220	249	299	433	403	469
White.....	247	177	195	226	254	306	441	410	478
Nonwhite.....	150	136	142	150	160	175	229	199	254
Ratio of nonwhite to white....	61	77	73	66	63	57	52	49	53
THE WEST									
Total.....	254	164	206	231	263	294	401	369	436
White.....	263	171	211	237	269	300	409	378	445
Nonwhite.....	166	131	150	163	184	189	265	226	326
Ratio of nonwhite to white....	63	77	71	69	68	63	65	60	73
Professional, technical, and kindred workers									
THE NORTH									
Total.....	362	223	239	271	291	306	426	359	476
White.....	368	232	242	275	295	311	433	365	485
Nonwhite.....	218	-	-	-	182	191	252	-	270
Ratio of nonwhite to white....	59	-	-	-	62	61	58	-	56
THE WEST									
Total.....	358	228	239	272	301	303	417	356	458
White.....	364	237	246	278	305	308	424	362	466
Nonwhite.....	275	-	-	-	-	238	336	-	392
Ratio of nonwhite to white....	76	-	-	-	-	77	79	-	84
Farmers and farm managers									
THE NORTH									
Total.....	144	123	130	147	156	177	200	202	-
White.....	145	124	131	148	157	179	202	204	-
THE WEST									
Total.....	216	159	188	212	227	252	332	326	-
White.....	220	171	191	213	231	253	353	338	-
Nonwhite.....	179	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	81	-	-	-	-	-	-	-	-
Managers, officials, and proprietors, except farm									
THE NORTH									
Total.....	378	239	276	317	351	428	602	594	622
White.....	384	249	281	322	355	434	611	601	569
Nonwhite.....	183	126	148	159	192	-	-	-	-
Ratio of nonwhite to white....	48	51	53	49	54	-	-	-	-
THE WEST									
Total.....	376	257	309	332	369	411	496	492	505
White.....	383	272	312	338	375	418	507	502	517
Nonwhite.....	246	-	-	-	272	-	-	-	-
Ratio of nonwhite to white....	64	-	-	-	73	-	-	-	-
Clerical and kindred workers									
THE NORTH									
Total.....	215	179	193	206	221	228	267	264	273
White.....	219	184	197	210	225	233	272	269	279
Nonwhite.....	167	146	148	162	174	181	-	-	-
Ratio of nonwhite to white....	76	79	75	77	77	78	-	-	-
THE WEST									
Total.....	223	185	200	214	227	229	254	250	260
White.....	227	191	203	218	232	234	261	257	266
Nonwhite.....	177	-	-	174	185	179	-	-	-
Ratio of nonwhite to white....	78	-	-	80	80	76	-	-	-

— Represents zero.



Table E-3.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND MAJOR OCCUPATION GROUP, FOR THE NORTH AND WEST REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Sales workers									
THE NORTH									
Total.....	282	188	218	245	274	317	403	405	396
White.....	285	194	221	248	277	320	408	410	402
Nonwhite.....	158	-	-	156	159	-	-	-	-
Ratio of nonwhite to white....	55	-	-	63	57	-	-	-	-
THE WEST									
Total.....	284	213	224	244	278	306	372	383	352
White.....	289	221	228	248	282	310	377	388	359
Nonwhite.....	203	-	-	-	-	-	-	-	-
Ratio of nonwhite to white....	70	-	-	-	-	-	-	-	-
Craftsmen, foremen, and kindred workers									
THE NORTH									
Total.....	233	199	214	234	248	260	335	328	358
White.....	237	204	218	238	251	264	340	333	365
Nonwhite.....	164	153	159	163	175	187	-	-	-
Ratio of nonwhite to white....	69	75	73	68	70	71	-	-	-
THE WEST									
Total.....	245	212	230	243	255	259	315	306	345
White.....	249	218	235	247	259	264	320	311	351
Nonwhite.....	187	162	174	188	198	-	-	-	-
Ratio of nonwhite to white....	75	74	74	76	76	-	-	-	-
Operatives and kindred workers									
THE NORTH									
Total.....	199	177	194	204	213	214	226	227	223
White.....	203	181	197	208	217	219	231	232	228
Nonwhite.....	158	150	156	159	168	172	-	-	-
Ratio of nonwhite to white....	78	83	79	76	77	79	-	-	-
THE WEST									
Total.....	212	182	203	218	227	229	236	233	-
White.....	217	189	207	222	231	234	240	236	-
Nonwhite.....	159	140	157	168	173	171	-	-	-
Ratio of nonwhite to white....	73	74	76	76	75	73	-	-	-
Service workers, including private household									
THE NORTH									
Total.....	165	135	153	168	185	181	207	210	202
White.....	172	140	160	177	192	189	216	220	209
Nonwhite.....	124	115	117	126	136	138	-	-	-
Ratio of nonwhite to white....	72	82	73	71	71	73	-	-	-
THE WEST									
Total.....	178	141	161	174	197	202	216	215	-
White.....	187	144	166	182	205	210	222	221	-
Nonwhite.....	135	129	136	139	141	142	-	-	-
Ratio of nonwhite to white....	72	90	82	76	69	68	-	-	-
Farm laborers and foremen									
THE NORTH									
Total.....	93	74	91	103	122	-	-	-	-
White.....	96	76	92	104	123	-	-	-	-
Nonwhite.....	64	55	66	69	-	-	-	-	-
Ratio of nonwhite to white....	67	72	72	66	-	-	-	-	-
THE WEST									
Total.....	108	86	115	127	146	150	-	-	-
White.....	110	87	120	131	149	154	-	-	-
Nonwhite.....	92	83	-	-	-	-	-	-	-
Ratio of nonwhite to white....	84	95	-	-	-	-	-	-	-

— Represents zero.

Table E-3.—ESTIMATED LIFETIME EARNINGS FOR MALES, BY YEARS OF SCHOOL COMPLETED, COLOR, AND MAJOR OCCUPATION GROUP, FOR THE NORTH AND WEST REGIONS—Con.

[Thousands of dollars. Earnings from age 18 to 64 years]

Area and color	Years of school completed								
	Total	Elementary		High school		College			
		Less than 8 years	8 years	1 to 3 years	4 years	1 to 3 years	4 years or more		
							Total	4 years	5 years or more
Laborers, except farm and mine									
THE NORTH									
Total.....	161	147	159	167	177	178	195	199	-
White.....	166	151	163	172	182	184	202	-	-
Nonwhite.....	135	130	134	139	143	-	-	-	-
Ratio of nonwhite to white....	81	86	82	81	79	-	-	-	-
THE WEST									
Total.....	171	148	170	179	191	185	-	-	-
White.....	177	153	175	184	196	191	-	-	-
Nonwhite.....	138	126	133	148	153	-	-	-	-
Ratio of nonwhite to white....	78	82	76	80	78	-	-	-	-
Occupation not reported									
THE NORTH									
Total.....	224	173	191	215	243	274	383	367	415
White.....	238	183	199	228	253	286	396	381	427
Nonwhite.....	147	139	143	150	151	171	-	-	-
Ratio of nonwhite to white....	62	76	72	66	60	60	-	-	-
THE WEST									
Total.....	230	168	198	209	257	276	321	303	350
White.....	242	176	207	220	269	283	333	314	359
Nonwhite.....	155	137	-	142	171	-	-	-	-
Ratio of nonwhite to white....	64	78	-	65	64	-	-	-	-

— Represents zero.

Source : Unpublished data of the Bureau of the Census.



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